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TITLE: Novel Recruitment Techniques for a Study of Culture-Specific Diet, Metabolic Variability and Breast Cancer Risk in African-American Women

PRINCIPAL INVESTIGATOR: Christine B. Ambrosone, Ph.D.

CONTRACTING ORGANIZATION: FDA, Division of Molecular Epidemiology  
Jefferson, Arkansas 72079-9502

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## Introduction

Among African-American women younger than age 50, breast cancer incidence is almost twice that of Caucasian women. African-American women are more often diagnosed with aggressive tumors and have higher mortality rates than Caucasians. Differences in tumor biology and mortality do not appear to be due to factors related to socioeconomic status. Little is known regarding explanations for these racial disparities, perhaps because of the difficulty in enrolling African-Americans into research studies. The purpose of this pilot study was to develop a novel method of recruitment, focused primarily on minority women, and investigate previously unexplored risk factors in breast cancer epidemiology. Through rapid case ascertainment by tumor registries in Arkansas, we intend to enroll approximately 260 cases over two years, frequency-matched to controls randomly selected from Health Care Finance Administration (HCFA) and Arkansas Driver Services (ADS) lists. Cases and controls are matched to racially similar breast cancer survivor-recruiters. Potential participants are sent introductory postcards with the recruiters' photographs on them. Several days later, the recruiters call the potential participants to describe the study and seek their participation. Culturally appropriate interviewers administer questionnaires, draw blood and collect urine specimens from the participants. Once processed, data from these sources will be used to explore study hypotheses related to gene/environment interactions. We intend to evaluate the role that diet particular to African-Americans in the rural South may play in breast cancer etiology, and to assess the possible modification of risk by genetic differences in steroid hormone and carcinogen metabolism. A specimen bank was established to enable exploration of future hypotheses.

## Body

The proposed work was a pilot case-control study of breast cancer in African-American women. We realized, however, that without a comparable Caucasian group from the same locales as the African-American women, interpretation of the data would be difficult. It would be impossible to determine if specific risk factors are more prevalent in African-American women and are, thus, related to the increased early age at onset and more aggressive disease, or if they are merely regional habits that are shared by women of both groups. Therefore, additional funding was sought from the Public Health Service Office of Women's Health (DHHS PHS OWH) to support an identical study in Caucasian women, so that results could be compared.

Research accomplishments associated with each Task outlined in the Statement of Work will be addressed within the context of each of the accomplishments.

### **Technical Objective 1 Develop and pilot a novel approach for enrolling minority women into research studies.**

**Task 1: Months 1-2: Organizational start up tasks--finalize questionnaire, continue training sessions and role-playing with Witness Project<sup>TM</sup> recruiters and interviewers.**

These tasks have been accomplished. The questionnaire is finalized (see appendix), interviewers are well-trained and experienced, and the recruiters are highly successful. Meetings are held regularly with recruiters to maintain enthusiasm and commitment, and to troubleshoot areas of difficulty. A paper detailing the recruitment strategies, 'Challenges, Limitations and Strategies for Increasing Participation in Epidemiologic Studies', has been submitted to Cancer Epidemiology, Biomarkers and Prevention (6/99) as a Commentary (see appendix). In the spring of 1999, a presentation regarding recruitment methodology in our study was also presented at the National Action Plan on Breast Cancer Workshop on Multicultural Aspects of Breast Cancer Etiology in Washington D.C.

**Task 2: Months 3-24. Identify incident breast cancer cases by rapid ascertainment; Identify controls from Department of Motor Vehicles and State Identity lists; recruitment of 230 cases and 230 controls by staff from Witness Project.<sup>TM</sup> Periodically assess effectiveness of individual recruiters by evaluation of response rates among women contacted by each individual.**

Recruitment of both cases and controls is ongoing. The study has not moved as quickly as anticipated, primarily because of the inability to identify sufficient numbers of African-American women with breast cancer who are eligible for the study. Seventy-five percent of African-American Arkansan women who are diagnosed with breast cancer live in either Pulaski or Jefferson County. We currently identify cases through the Arkansas Cancer Research Center, the major cancer treatment facility in Pulaski County. A large

number of African-American women with breast cancer who reside in Southeastern Arkansas receive treatment at Jefferson Regional Medical Center (JRMCC). While JRMCC physicians agreed to allow us to contact their patients in December, 1996, access to tumor registry information was not forthcoming. Problems were first encountered with the JRMCC Tumor Registrar, who was reluctant to release patient names. This situation was complicated by the fact that JRMCC has no OPRR-approved Institutional Review Board. Thus, months were spent finalizing a Single Project Assurance with the OPRR and wrangling with legal concerns regarding access to patient names. All of these problems have been successfully overcome, however, and we are actively recruiting from JRMCC. This still did not provide an adequate pool of eligible African-American women with breast cancer.

Two other approaches have been taken to identify additional African-American women with breast cancer. It appears that a significant number of women who live in Northeastern Arkansas in areas bordering the Mississippi River (the state boundary) seek treatment in Memphis, Tennessee, rather than travelling to central Arkansas. We are collaborating with physicians at the Methodist Healthcare Cancer Center (MHCC) in Memphis, Tennessee. They have agreed to allow us to contact women from Arkansas who seek breast cancer treatment at their Memphis facilities. Methodist Healthcare owns and operates 16 hospitals in West Tennessee and Central Mississippi and is the largest private, not-for-profit hospital in the country. It is also ranked number one in market share (38.3%) in Memphis according to the 1996 Joint Annual Reports of Hospitals. With hospitals in all four corners of Memphis, approximately 90 Arkansan women with breast cancer seek treatment at MHCC each year. We are also working with physicians in the Arkansas Department of Health Breast and Cervical Cancer Screening Program. The ADH Medical Director, Dr. David Bourne, refers women who are diagnosed with breast cancer through their screening program to our study.

Table 1 shows numbers of women enrolled into the study to date, and response rates for both African-American and Caucasian women. To date, interviews have been completed for 181 women, aged 29-75, with breast cancer and 48 community controls. The participation rate (the proportion of women who complete the study) for cases is 73% for Caucasian women, and 60% for African-American women. These rates are much improved over those using the standard methodology employed in an earlier study in this difficult-to-reach community, in which, for Caucasians and African-Americans (men and women) combined, participation rates were 37% and 30% for cases and controls, respectively.

As reported in the attached submitted manuscript, recruitment monitoring revealed that individual recruiter success rates varied considerably (65%-87% currently). The number of women contacted by each recruiter and response rates by recruiter are shown in Table 2. To capitalize on the most successful recruiters' experiences, we videotaped them recruiting potential participants by telephone to capture the unique methods employed to encourage participation. A wide range of successful tactics have been recorded and disseminated this way. These observations allowed us to rewrite the recruiters' script to incorporate elements found to be useful, and to reduce jargon.

We have also been actively recruiting controls, using the same methodology as we do for cases. The number of controls contacted to date is insufficient to report participation by race, but overall participation is excellent, at 89%. Table 3 shows progress for control ascertainment and recruitment. Due to unexpected programming difficulties with ADS and request processing difficulties with HCFA, control identification has been delayed. There are currently no obstacles preventing control identification or recruitment.

### **Task 3: Months 24-30**

**Technical Objective 2** With a Food Frequency Questionnaire (FFQ) supplemented with foods commonly eaten by African-American women in the rural south, investigate the role of dietary sources of fat and heterocyclic amines in BC risk.

**Task 1: Months 1-3** Adapt FFQ to include foods found to be commonly eaten by African-American women in Eastern Arkansas previously surveyed.

To determine if additional foods should be added to the Gladys Block Health Habits and History Questionnaire (HHHQ) to improve its suitability for African-American women in the lower Mississippi Delta, we conducted a survey of foods and cooking methods that may be particular to these residents. In collaboration with the Department of Dietetics and Nutrition at UAMS, a list of 60 foods commonly eaten by this population, such as wild game, parts of animals not traditionally eaten, and foods cooked with fat, was compiled through in-depth interviews and focus groups. We developed a Food Frequency Questionnaire with those foods elicited and then surveyed approximately 400 African-American women, aged 40 to 70, who live in eastern Arkansas. The survey indicated that few of the foods queried were eaten frequently by a large proportion of the population, but that several food items not on the Block questionnaire were eaten 1 to 4 times or more per month by > 50% of women surveyed. These foods included okra, southern peas (crowder, purple hull, split), butter and northern beans. Furthermore, more than 50% of women added fat when they cooked beans or greens, such as collards, mustard greens or kale. These additional items were added to the questionnaire already validated in Atlanta for a southern African-American population.

**Task 2: Months 3-26** Interviews with cases and controls; ongoing monitoring of interviewers.

As stated above, interviewing of cases and controls is ongoing. Completed questionnaire booklets are reviewed weekly by the project director, Rebecca Morris-Chatta, MPH, for accuracy and coherence. Interviewer performance is thus evaluated continually. One phenomenon that we have observed using this methodology is the case in which a potential participant will agree when speaking with the recruiter, but then refuse when contacted by the interviewer. Late refusals may occur at the time the interview is scheduled, or after the interview is scheduled, often after several requests from the participant to reschedule. Interestingly, the pattern of late refusals varies by interviewer, and steps are being taken to train all interviewers in how to approach the potential participants who have already agreed to participate. We have also taken steps to cut down

on the amount of time between the recruiter contact and the interview scheduling. Late refusal rates have dropped 20% since these changes were implemented.

**Technical Objective 3** Evaluate genetic variability in metabolism of HAs by examining phenotypic variability in CYP1A2 and sulfotransferase activity, as well as genetic polymorphisms in *NAT1*, *NAT2*, *ST1A3* and *CYP1A2*.

**Task 1: Months 3-26** Perform phenotyping assays for CYP1A2, NAT2, and phenol sulfotransferase

**Task 2: Months 26-30** Perform DNA analysis for genetic polymorphisms in *CYP1A2*, *NAT1*, *NAT2*, *ST1A3*

We established a biologic specimen bank in the context of this study, and protocols for processing and storage of blood were developed. Blood samples are processed so that there are aliquots of serum, plasma, platelets, red blood cells, and buffy coat. Using a processing system currently used in the 350,000-person EPIC study in Europe, each blood component is mechanically aliquotted into several 0.5ml straws that are prestamped with an ID number and barcode. Straws are heat-sealed and stored in canisters in liquid nitrogen tanks, with a detailed computerized mapping scheme in place. Our laboratory routinely performs high throughput genotyping and has extensive experience in assaying all of the genes proposed for study.

In our ongoing efforts to validate the Risk-Tox Chip, a sample set of DNAs has been genotyped in our laboratory at ACRC. DNA samples with results for the *NAT2*\*4 (wt), \*5 (*T*<sup>341</sup>*C*), \*6 (*G*<sup>590</sup>*A*), \*7 (*G*<sup>857</sup>*A*) and the *COMT*<sup>H</sup> and *COMT*<sup>L</sup> using standard restriction fragment length polymorphism analysis were shipped to Genometrix Inc. Probe design for the microarray platform and primer design for multiplex PCR of *NAT2* and *COMT* simultaneously have been developed at Genometrix. Our preliminary validation results of the "Prototype Risk-Tox Chip" using this sample set showed excellent concordance between the two methods. We expect that within the next six months, the chip will be completed, with all genes of interest validated. At completion of data collection, we will be able to quickly and efficiently perform genotyping assays.

**Task 3: Months 31-36**

### **Key Research Accomplishments**

- Establishment of infrastructure for molecular epidemiologic study (questionnaire development, protocols and equipment for blood processing and specimen banking, recruiter and interviewer hiring and training, development of data bases for participant tracking and questionnaire data, etc.).
- Enrollment of cases and controls into study – response rates far superior to those in earlier case-control study in the same locales.
- Adaptation of FFQ to the African-American population in Arkansas.

### **Reportable Outcomes**

**Presentation** at National Action Plan on Breast Cancer Workshop on Multicultural Aspects of Breast Cancer Etiology. Washington DC, 1999. Erwin DO, Morris-Chatta R, Long S, Ambrosone CB. An innovative method for increasing participation of African-American women in epidemiological studies.

**Manuscript** on recruitment submitted to *Cancer Epidemiology, Biomarkers and Prevention* - Erwin DO, Morris-Chatta R, Long S, Ambrosone CB. Challenges, Limitations and Strategies for Increasing Participation in Epidemiologic Studies.

**Biologic specimen bank** established with DNA, serum, plasma and red blood cells from cases and controls.

**Grant submitted** to NCI 2/99, 'Breast Cancer in the Lower Mississippi Delta'. Investigators: Ambrosone, Fontham, Erwin, et al.

## Conclusions

In this pilot study, case ascertainment has been accomplished through collaborations with physicians at the Arkansas Cancer Research Center (ACRC) in Little Rock; Jefferson Regional Medical Center (JPMC) in Pine Bluff, Arkansas; Methodist Healthcare Cancer Center (MHCC) in Memphis, Tennessee and through the Arkansas State Department of Health. Controls have been identified through the Health Care Finance Administration and Arkansas Driver Services enrollment files. Interviews have been conducted using a questionnaire adapted from one developed by John Potter and Kristen Anderson at University of Minnesota, and used in a study of colorectal cancer in Arkansas (Lang, PI). This instrument was modified to collect data on breast cancer risk factors using the validated questionnaires from the Western New York Diet Study and the Women's Health Initiative. Blood and urine samples for genotyping and phenotyping have also been obtained. We have established a biologic specimen bank, with a detailed protocol for blood processing and storage. All of the assays to be performed have been refined in our laboratories at the ACRC and National Center for Toxicological Research (NCTR). Recruitment is well underway and the methodology appears to be a vast improvement over previous work in this area.

Full-scale epidemiologic studies require large budgets, which include personnel, supplies, equipment, etc. Furthermore, building of an infrastructure is essential, yet laborious and time-intensive. There was little to no organized epidemiologic studies being conducted in Arkansas when this study was initiated, and funding received from the Department of Defense and the OWH has been used to develop the infrastructure and get it the study into the field. We now have cooperation from several major hospitals in the Mississippi Delta and the Arkansas Department of Health, and expect to more quickly ascertain African-American women diagnosed with breast cancer in the coming year. Our methodology has been established and tested, staff training manuals have been developed (see appendix) and successfully piloted, and a specimen bank has been established and is in use.

## DOD Annual Report Tables

Table I

## Study Enrollment - Cases

Race	Enrolled	Refused	Participation %	TOTAL
African-American	31	21	60	52
Caucasian	146	53	73	199
Other	4	0	100	4
TOTAL	181	74	71	255

Table II

## Recruitment by Recruiter

Recruiter	Agreed	Refused	Recruitment %	Late Refusers	TOTAL ATTEMPTS
1	125	21	87	18	164
2	76	14	86	8	98
3	15	8	68	2	25
4	4	0	100	0	4
5	9	6	65	2	17
6	0	1	0	0	1
TOTAL	227	50	82	30	309

Table III

## Study Enrollment - Controls

Race	Enrolled	Refused	Participation %	TOTAL
African-American	1	2	33	3
Caucasian	47	4	92	51
Other	0	0	0	0
TOTAL	48	6	89	54



**Appendices:**

Submitted manuscript

Presentation abstract

Questionnaire

Adapted HHQ

Training manual

# Challenges, Limitations and Strategies for Increasing Participation in Epidemiologic Studies

D.O. Erwin<sup>1</sup>, R. Morris-Chatta<sup>1</sup>, S. Long<sup>1</sup>, C.B. Ambrosone<sup>1,2 \*</sup>

<sup>1</sup>Arkansas Cancer Research Center, University of Arkansas for Medical Sciences, Little Rock, AR 72205

<sup>2</sup>National Center for Toxicological Research, Division of Molecular Epidemiology, Jefferson, AR 72079

\*Address correspondence to:

Christine B. Ambrosone, Ph.D.

Arkansas Cancer Research Center

University of Arkansas for Medical Sciences

4301 West Markham Slot 795

Little Rock, AR 72205

Running title:

Participation in epidemiologic studies

## Abstract

Low participation or differential participation rates for cases and controls in epidemiologic studies is a growing problem in research. Selection bias could be responsible for findings that are not generalizable to the general public, and also for inaccurate risk estimates between exposures and disease outcomes. It is especially important in many studies to adequately recruit minority participants. This report describes the potential utility of an innovative method for increasing participation through the help of patient advocates. The barriers and challenges to study accrual and the theoretical foundation for utilization of patient advocates are discussed. The research experience in breast and prostate cancer is used as a model for developing interventions to explore improved methods for recruitment of cases and controls. A model incorporating community-based, ethnically-matched male and female cancer survivors and culturally competent interviewers is recommended.

## Introduction

In support of the need for research findings that can be generalizable to all individuals within a heterogeneous population, the 1993 NIH Revitalization Act requires minority groups to be included as subjects in clinical research. Difficulty in recruiting individuals into research studies appears to be a growing universal trend, but is particularly significant in special populations. This report describes the barriers and challenges to study accrual, with a focus on minority populations. It also discusses an innovative method for increasing participation through the help of patient advocates.

### *Non-participation and selection bias*

Participation by all possible individuals who are eligible for enrollment in epidemiologic studies is critical. Low participation or differential participation rates for cases and controls could result in selection bias. This bias will be strongest if the relationship between the exposure and disease observed among those who participate in the study is different from the exposure/disease relationship for individuals who would have been eligible but were unwilling to participate. Those who agree to participate, particularly in a study that requires an extensive interview and blood specimen collection, may be more interested in health matters than those who decline to participate. These participants may be less apt to smoke cigarettes or drink excessive alcohol, or more likely to eat a healthier diet, exercise regularly, and maintain ideal body weight.

For example, in a molecular epidemiologic study of breast cancer in Western New York (1), only a subset of study participants agreed to provide a blood specimen. Comparison of those who consented to phlebotomy to those who refused revealed that, while there

was little difference between cases, controls differed on a number of potential breast cancer risk factors. Controls who agreed to give a blood specimen had significantly fewer pregnancies, were less likely to smoke, and were higher consumers of chicken and fish and lower consumers of beef than those who refused. This resulted in skewed estimates of risk. While overall no association existed between breast cancer risk and cigarette smoking, smoking increased risk among the subset of women who gave blood. In the larger data set, there were equal proportions of 'never smokers' in the referent category for cases and controls, while among those who provided a specimen, there were twice as many controls who had never smoked as cases.

When differences between participants and non-participants can be evaluated in a study such as the example given above, this bias can be taken into account in the analytic approach. However, when there is not extensive data on those who refuse, the likelihood and extent of selection bias is difficult to ascertain. Clearly, for valid case-control study results, the maximum number of eligible individuals should be enrolled.

### *Reasons for non-participation*

Much of the groundwork for the study of barriers to participation and generation of strategies to increase participation in biomedical studies has been laid in the field of clinical trials. Ness and colleagues (2) reviewed the literature in 1997 and concluded that "the published literature currently contains insubstantial data to either refute or prove that there are differential recruitment rates among minorities as compared with whites" in clinical studies. This review of published literature between 1993 and 1995, however,

reflected research generally accomplished several years prior to the 1993 Revitalization Act in which NIH stated that minority groups must be included as subjects in clinical research; thus, reporting of recruitment difficulties may not have been relevant.

Other national data in this genre suggest that minorities may be underrepresented in clinical trials (3-5). Lack of participation and accrual has been attributed to a variety of barriers. These include: treatment cost problems due to low socioeconomic status, lack of bilingual or culturally sensitive staff, perceived efficacy of investigational programs or trials, lack of protocol availability for minorities related to lower eligibility/late diagnosis, lack of community involvement and support, and difficulties related to poverty, such as hopelessness, powerlessness, and survival priorities (2; 5-12).

Some of these barriers may be specific to a particular ethnic group or gender, others are more closely related to poverty. In a comprehensive review of the literature on recruitment for controlled clinical trials, Lovato (4) and colleagues list "lack of trust" as one of the most common barriers to participation. Those sub-populations unfamiliar with the nature of research studies or those who are wary of the medical community may be most difficult to recruit. For example, the recruitment of African-Americans into research studies is historically difficult (5), perhaps because of the extensive knowledge among African Americans of the Tuskegee Syphilis Experiment. That breach of ethics in a research study may have created a sense of "distrust and suspicion that hampers cancer research efforts in many Black American communities" (13)(14). Because barriers to

recruitment may vary among age and race subgroups, recruitment strategies need to be tailored to specific potential participants (15)(16).

### *Enhancing recruitment to clinical trials*

The recruitment of minority participants to research studies often requires more time and money than accrual of Caucasians (16), with the use of additional targeting strategies. In light of the intensity of the time and effort required, El- Sadr and Capps (3) have even suggested that the definition of research costs should be broadened to include the funding of meals, social and outreach services, transportation, child care, and educational materials to enhance the success of minority recruitment. Moreover, they stress the importance of a "realistic estimation of the number and types of personnel needed to successfully recruit, retain, and follow" trial participants.

To reduce the suspicion and distrust that may discourage participation in research studies, some studies indicate that attention be given to characteristics of the investigators. In a review of the literature, Kelly and Cordell (17) report that the recruitment and retention of women is significantly improved (enrolled at twice the rate) in studies in which some or all of the principal investigators are female as compared to studies in which all of the investigators were male. While gender of the investigator has been shown to be important, cultural background may be even more so. Interestingly, although interviewer effects have been considered less important in telephone surveys, Moorman and colleagues (15) found in the North Carolina Breast Study that results of even the first contact by phone were dependent on or influenced by the perceived race of the interviewer. While cooperation rates were highest among both black and non-black

women when interviewers and participants were concordant on race in this study, cooperation rates were lowest among controls, older women, and African American women with breast cancer in comparison to Caucasian women.

These examples demonstrate the inadvertent gender and ethnic messages and barriers that may exist without advocates and diversity present in the staff personnel. Qualified bilingual/bicultural staff provide important cultural liaisons to the clinical population as well as to the institution in the development of protocols and study designs (18)(19). Studies indicate that nonjudgmental, supportive staff, drawn from the same community as the desired population, establishes trust more easily (17). For African-Americans, the use of African-American interviewers may be reassuring and better demonstrate that the research is important and relevant to people of their community, thus increasing the likelihood of overcoming a mistrust of medical researchers (15)(3). The ability of the nine Minority-Based Clinical Community Oncology Programs (MB-CCOP) to accrue 10% of all minority participants to NCI-sponsored oncology trials further supports the importance of cultural competency in the staff (20).

In a review of the literature, Swanson and Ward (5) conclude that the most effective method of recruitment is from the community rather than the health care system. Likewise, Lovato et al. (4) listed successful recruitment strategies in minority populations as those programs which honor important cultural values (10) and utilize community leaders and relationships with community gatekeepers, including one-to-one



communication strategies (21; 22). The Women's Health Trial Feasibility Study in Minority Populations was successful in recruiting minority women to a nutritional intervention study, including participants with low literacy skills. This was accomplished through a thorough, intensive, focused recruitment campaign including mass mailings, the media, referrals, and community outreach by a dedicated culturally competent staff (16; 23). Many of these principles have been applied to programs throughout the United States, including our own programs in Arkansas, described below.

Because meaningful epidemiological cancer research cannot be performed in human populations without maximal participation, and because recruitment is often low in African-American and other minority communities, developing effective new recruitment methods for difficult-to-reach populations is critical. Building upon a strategy in which African-American women who were breast and cervical cancer survivors were recruited, trained, and promoted as role models and lay health advisors (Witness Project®) in the medically-underserved Mississippi Delta region, we describe a methodology developed for recruitment of participants, particularly minorities, into epidemiologic studies.

#### *Developing the model- education and outreach*

Low income and low literacy populations have not been adequately reached with traditional health communication strategies designed for the general public. The theoretical basis for our outreach recruitment project included communication strategies and models for behavior change that address many of the same barriers that apply to clinical trial accrual. To be effective, messages must meet the needs of individuals at all literacy levels and cultural

backgrounds. For individuals who read poorly, the setting needs to be peer-oriented and focused on perceiving information concretely, and on processing information actively (24). Messages must regard all styles of learning and both brain hemisphere preferences. Both achievement and attitude are affected positively when learning styles and left and right brain preferences are addressed (25). Many individuals without formal educational backgrounds are right-brained processors who learn best from demonstrated instructions in an open-ended setting that includes emotional judgements (26). Cancer survivors can provide these experiential, right-brain, personal messages.

Important predictors of behavior are related to cognitive and sociocultural models such as health beliefs (27), health locus of control (28), social relationships (29), and social norms (30). In cancer screening and education, projects that use direct education (in-person, small groups, one-on-one or tailored messages) with culturally sensitive methods are the most effective cues to action for addressing health beliefs (31-34). Direct education methods by survivors to patients, as peers from similar cultural backgrounds, will provide a meaningful message that can help patients address and overcome the emotional, social, and experiential issues and barriers involved in participation in research studies.

With respect to minorities, recent information about outreach programs and the knowledge gap between Caucasians and African Americans indicates a credibility problem related to the transfer of information to underserved populations. Freimuth reports that in the African-American population, there is a "preference for ordinary African-American people who had

experienced and overcome a problem," (35) to be the messengers, which is the basis of the Witness Project® model.

The Witness Project® was developed to increase awareness of breast and cervical cancer and to encourage screening for early detection in rural African-American communities. In this program, African-American women who are breast and cervical cancer survivors are recruited, trained, and promoted as role models and lay health advisors. These women speak at rural churches and in community settings about the need for breast self-examination, clinical breast exams, screening mammography, and Pap tests (36). The Witness Project® volunteers report that often a diagnosis of breast cancer is veiled in shame and secrecy in rural African-American communities. Cancer is feared and dreaded, and there is little open discussion about treatment, causes, or the personal experiences related to a breast cancer diagnosis. Results from the Witness Project® indicate that this program is an effective method to reach and communicate with minority women. Furthermore, post-intervention surveys of participants demonstrate a significant increase in the practice of breast self-examination and mammography as compared to women in the control group (36; 37).

Although the Witness Project® was designed for reaching rural African-American women for the purpose of increasing early detection, this role model method may be effective for recruitment of women to epidemiological studies. This type of initiative, involving women from various cultural backgrounds to speak to potential study participants, is likely to address the social and cultural issues of credibility, trust, empowerment, perceived efficacy, language, and community support. Survivors as role models and messengers are often better

able to educate and inform their peers in a culturally appropriate way. One of the key factors may be the fact that these role models are able to relate to their audience on a personal level because they share spiritual and cultural lifestyles and beliefs that increase the level of trust in the relationship (37). This is equally true for the study recruitment of men as well as women.

The Witness Project® model was expanded to the *Patient Advocates for Clinical Trials (PACT)* project. This *PACT* project was a two-year study designed to investigate the feasibility of overcoming sociocultural barriers to participation in clinical trials through systematic use of breast cancer survivors serving as role models to inform other women about clinical trials. Nineteen women who had participated in a breast cancer clinical trial were trained as *PACT* advisors and matched by ethnicity, income, education, age, and geographic region of the state (urban/rural) to talk with 35 new breast cancer patients. Full results of this study methodology and research results will be reported in another paper, but current results indicate that survivors are enthusiastic about serving as part of a "recruitment team" and 55.5% of the new patients deemed clinically eligible for trials were subsequently enrolled after talking with a *PACT* advisor.

### *Cancer survivors as recruiters to epidemiologic studies*

The Mississippi River Delta is a region of high minority and low income populations, and residents are often wary and distrustful of the medical community. In an earlier case-control study of cancer in central and eastern Arkansas, recruitment of subjects into the study was extremely difficult and participation rates were low. Potential participants were

contacted by telephone, and response rates were approximately 30% for controls, and 37% for cases. Utilizing models developed in the *Witness Project* and the *PACT* project, we developed an innovative method of recruitment that has been more successful than the one used in the earlier case-control study. First applied to an epidemiologic study of breast cancer, this approach is also being used in a case-control study of prostate cancer.

Women who were breast cancer survivors and were volunteers for the *Witness* and *PACT* programs, and later, men who were prostate cancer survivors, played an integral role in development of strategies for recruitment for our epidemiologic studies on breast and prostate cancer, developing the following methodology . Women and men who are breast or prostate cancer survivors are trained in our recruitment approach. They are matched to potential participants (cases and controls) by race and area of residence. This provides a culturally-appropriate process for overcoming many of the barriers to recruitment, especially for African-American men and women. Relying on data obtained from focus groups and interviews, training procedures have been standardized in a training manual. During training sessions, recruiters participate in role-playing in order to consider the numerous possible reactions potential participants may have when contacted and to learn how to respond to each. By the end of training, recruiters understand the importance of having good response rates for valid results.

After a case or control has been notified that they may be contacted and that their physician is aware of the study (for cases only), they are matched with a culturally appropriate recruiter from the same residential area. An introductory postcard with a

photograph (Figure 1) of the recruiter (devised as a result of recruiter feedback) is mailed to the potential participant, explaining that the recruiter is a breast/prostate cancer survivor, that she/he lives nearby, and will be calling soon to discuss the research study. Several days later, the recruiter calls the potential participant, describes study goals and discusses the interview procedure, following a basic script that has been tested in focus groups, and role-played with the breast and prostate study recruiters.

Because older women often have higher refusal rates, specific fears and concerns may need to be addressed. For example, in our experience, and as described for a case-control study in North Carolina (15), older women are often fearful of having strangers come into their home for an interview and may want to meet at another location, usually their doctor's office or local eating establishment. Talking with a family member may help to confirm the legitimacy of the study, and having someone else present for an interview may make the study more acceptable (15). It is also useful to have professionally produced brochures that describe the study, show the study staff, and answer questions commonly asked regarding the study to send to the potential participants.

Recruiters are paid \$10 for successful contacts, and \$5 for those who refuse. If the individual agrees to participate, an interviewer of the same race schedules an interview, either at the participant's home or at another convenient location. Focus groups determined that it was important for women only to be interviewers for the breast cancer study. However, prostate cancer survivors felt that a female interviewer would be acceptable for men. The recruitment process often serves as a source of support and

networking for women newly diagnosed with breast cancer. Participants in the study are offered a \$25 gift certificate to one of several local and national retailers. Many people in the Delta live in extreme poverty, and in our experience, this small remuneration not only increases incentive to participate, but is also greatly appreciated.

To date, interviews have been completed for 215 women, aged 29-75, with breast cancer; enrollment of community controls is in the active recruitment phase. Participation rates (the proportion of women who complete the study) for cases are 80% for Caucasian women, and 72% for African-American women. While the prostate study is in the very early stages of enrollment, 76% of the men contacted have agreed to participate. These rates are much improved over those using the standard methodology employed in an earlier study in this difficult-to-reach community, in which participation rates were 37% and 30% for cases and controls, respectively for Caucasians and African-Americans (men and women) combined.

Recruitment monitoring revealed that individual recruiter success rates varied considerably (67%-88%). To capitalize on the most successful recruiters' experiences, we used videotaped recruitment telephone calls to capture the unique methods employed by recruiters to encourage participation. A wide range of successful tactics have been recorded and disseminated. These observations allowed us to rewrite the recruiters' script to incorporate elements found to be useful, and to reduce jargon. Concise, friendly conversations by recruiters who are confident and proficient with study information are the most successful.

To maintain enthusiasm and motivation of the staff, recruiters are paired with an interviewer 'buddy' who contacts them weekly. These staff members build rapport, provide a venue for open communication, and encourage feedback. This feedback is often implemented in study methodology improvements. The recruiters have a unique perspective on the recruitment process, as cancer survivors and key informants. Quarterly 'barbecues' are held as opportunities to meet on a social and professional level. The quarterly meetings may include discussion of necessary changes in the protocol, sharing success stories, and watching videotaped participant contacts of each recruiter. Recruiter satisfaction has increased as a result of additional focus on the recruitment role, reducing turnover. Experience appears to play a large role in recruitment success; it is hoped that increased satisfaction will lead to long tenure in the recruiter role.

One phenomenon that we have observed using this methodology is the case in which a potential participant will agree when speaking with the recruiter, but then refuse when contacted by the interviewer. Late refusals may occur at the time the interview is scheduled, or after the interview is scheduled, often after several requests from the participant to reschedule. Interestingly, the pattern of late refusals varies by interviewer, and steps are being taken to train all interviewers in how to approach the potential participants who have already agreed to participate. We have also taken steps to reduce the amount of time between the recruiter contact and the interview scheduling.

Potential participants who are women and men with cancer clearly appreciate the shared breast and prostate cancer experience and comment regularly that they are pleased to



speak with another woman or man who understands what they have been through. Recruiters and interviewers are regularly thanked by the participants for their efforts. Some participants have been so positively impacted by their recruitment experience that they have written thank-you notes, asked to be re-contacted by the recruiter, and have baked cookies for the interviewer. There have been no intensely negative responses in hundreds of participant interactions.

In addition to attention to sociocultural issues, an appropriate data management system designed to allow rapid, objective monitoring of recruitment performance regularly at staff meetings provides process evaluation to improve recruitment (16; 17; 19). Although further evaluation of this method is planned, these preliminary process evaluations indicate that this is a promising strategy for optimizing the recruitment of epidemiological study participants. In addition, it is an important collaborative step in increasing the role and contribution of survivors and advocates into the research design process.

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## Figure Legend

Figure 1. Postcard sent to potential 'control' participant, matched with recruiter by age, race, and county of residence.

Hi,

My name is

I am a breast cancer survivor and do  
patient education and outreach  
at the University of Arkansas  
for Medical Sciences and Jefferson  
Regional Medical Center.

Your name was randomly picked  
from the Driver's License Bureau  
and I am going to call you soon  
to tell you about a study we are  
conducting at UAMS.

---



**AN INNOVATIVE METHOD FOR INCREASING RECRUITMENT OF  
AFRICAN AMERICAN WOMEN TO EPIDEMIOLOGICAL STUDIES, Deborah  
O. Erwin, , Rebecca Morris-Chatta, Stephanie Long, Christine Ambrosone;  
Arkansas Cancer Research Center at the University of Arkansas for Medical  
Sciences**

**OBJECTIVE:** Low participation in epidemiologic studies is a significant problem. Those who do consent may not be representative of the general population. The development and refinement of methodology to effectively encourage African-American participation in research studies is the objective of this presentation.

**METHODOLOGY:** Utilizing models developed by the authors for cancer education outreach in *The Witness Project*® and treatment trial recruitment in the *Patient Advocates for Clinical Trials (PACT)* project (RO3, NCI), we developed an innovative method of recruitment that has been more successful than those used previously at our institution.

Women who are breast cancer survivors are matched by racial and residential backgrounds to the potential participants to contact cases and controls for this study. This provides a culturally-appropriate process overcoming the barriers to recruitment, especially for African American women. Relying on data obtained from focus groups and interviews, training procedures have been standardized in a training manual.

**RESULTS:** To date, 20 of the 29 (69%) African-American women contacted for the breast cancer study have agreed to participate, as have 106 of the 146 (73%) Caucasian women.

**CONCLUSION:** These rates are not optimal, but they are much improved over those using standard methodology in this difficult-to-reach community (30% of controls, and 37% for cases). Some recruiters are more successful than others, therefore, we have videotaped all of the recruiters making telephone calls for both the breast cancer pilot study. The successful interactions are, in general, brief, friendly, and informative. As a result of these observations, the recruiters' script has been re-written to incorporate elements found to be useful and to reduce jargon.



# *Health Habits Questionnaire*



*Carcinogenesis Unit of the Division of Surgical Oncology*

*Research Study Number One*

**UAMS  
MEDICAL  
CENTER**

*Strong Medicine  
for Arkansas*

## DEMOGRAPHICS

*Interviewer, please enter the date of diagnosis  
in the following format: MMDDYY, e.g. April 4,  
1950 equals "040450"*

RFDT \_\_\_\_\_

---

M	M	D	D	Y	Y
---	---	---	---	---	---

---

Since many people have never been in an interview exactly like this, let me start by reading you a paragraph that tells a bit about how it works. I am going to read you a set of questions exactly as they are worded so that every respondent in the study is answering the same questions. You'll be asked to answer two kinds of questions. In some cases, you'll be asked to answer in your own words. For those questions, I will have to write down your answer word for word. In other cases, you will be given a list of answers and asked to choose the one that best fits. If at any time during the interview you are not clear about what is wanted, be sure to ask me. Also, it is very important that your answers be accurate and complete. Please take as much time as you need.

---

I'd like to begin by asking you some questions about your background. What is your date of birth ?

AOO1 \_\_\_\_\_

(Enter in MMDDYY format)

---

M	M	D	D	Y	Y
---	---	---	---	---	---

---

*Interviewer, please enter the date of birth again  
for accuracy check.*

AO1b \_\_\_\_\_

(Enter in MMDDYY format)

---

M	M	D	D	Y	Y
---	---	---	---	---	---

---

**What is the highest grade or year of school or college that you have completed?**

AOO2

- 1 ☐ Eighth grade or less
- 2 ☐ Trade school or business school instead of high school
- 3 ☐ Some high school
- 4 ☐ High school graduate or G.E.D.
- 5 ☐ Trade school or business school after graduating from high school
- 6 ☐ Some college including 2 year degrees
- 7 ☐ Received bachelor's degree
- 8 ☐ Graduate or professional education beyond the bachelor degree
- 9 ☐ Graduate or professional degree
- 98 ☐ DK
- 99 ☐ R

**Please look at this card and tell me which choice best describes your race?**

AOO3

*(Interviewer: show respondent card A)*

- 1 ☐ African-American
- 2 ☐ White, not of Hispanic origin
- 3 ☐ Hispanic
- 4 ☐ Asian or Pacific Islander
- 5 ☐ Native American or Alaskan Native
- 6 ☐ Other [specific] \_\_\_\_\_
- 98 ☐ DK
- 99 ☐ R

**Are you currently married, living as married, widowed, divorced, separated, or never married?**

AOO4

- 1 ☐ Married
- 2 ☐ Living as married
- 3 ☐ Widowed
- 4 ☐ Divorced
- 5 ☐ Separated
- 6 ☐ Never married
- 98 ☐ DK
- 99 ☐ R

## SMOKING HISTORY

Have you ever smoked at least one  
cigarette per day for one year?  
(CHECK ANSWER)

SH1 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to HTX)  
98 ☐ DK (go to HTX)  
99 ☐ R (go to HTX)

In what year did you first (next) start  
smoking cigarettes?

SH2 \_\_\_\_\_

\_\_\_\_\_  
(write year)

Did you ever stop smoking cigarettes  
for six consecutive months or longer?

SH3 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to SH5)  
98 ☐ DK (go to SH5)  
99 ☐ R (go to SH5)

If yes, what year did you stop?

SH4 \_\_\_\_\_

\_\_\_\_\_  
(write year)

During the time that you smoked, how many cigarettes  
did you usually smoke in a day?

SH5 \_\_\_\_\_

# cigarettes \_\_\_\_\_

- 98 ☐ DK  
99 ☐ R

What year did you start smoking next?

SH6 \_\_\_\_\_

\_\_\_\_\_  
(write year)

**Did you ever stop smoking cigarettes  
for six consecutive months or longer?**

**SH7** \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to SH9)  
98 ☐ DK (go to SH9)  
99 ☐ R (go to SH9)

**What year did you stop smoking ?**

**SH8** \_\_\_\_\_

\_\_\_\_\_  
(write year)

**How many cigarettes per day  
did you smoke?**

**SH9** \_\_\_\_\_

# cigarettes \_\_\_\_\_  
98 ☐ DK  
99 ☐ R

**Were the cigarettes you smoked,  
filtered?**

**SH10** \_\_\_\_\_

- 1 ☐ Filtered  
2 ☐ Non-Filtered  
3 ☐ Both  
98 ☐ DK  
99 ☐ R

**How did you inhale?**

**SH11** \_\_\_\_\_

- 1 ☐ Not at all  
2 ☐ Mouth or throat  
3 ☐ Chest  
98 ☐ DK  
99 ☐ R

Did you start smoking again?

SH12 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

What year did you start smoking next?

SH13 \_\_\_\_\_

\_\_\_\_\_  
(write year)

Did you ever stop smoking cigarettes  
for six consecutive months or longer?

SH14 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to SH16)  
98 ☐ DK (go to SH16)  
99 ☐ R (go to SH16)

What year did you stop smoking ?

SH15 \_\_\_\_\_

\_\_\_\_\_  
(write year)

How many cigarettes per day  
did you smoke?

SH16 \_\_\_\_\_

# cigarettes \_\_\_\_\_

- 98 ☐ DK  
99 ☐ R

Were the cigarettes you smoked,  
filtered?

SH17 \_\_\_\_\_

- 1 ☐ Filtered  
2 ☐ Non-Filtered  
3 ☐ Both  
98 ☐ DK  
99 ☐ R

How did you inhale?

SH18 \_\_\_\_\_

- 1 ☐ Not at all  
2 ☐ Mouth or throat  
3 ☐ Chest  
98 ☐ DK  
99 ☐ R

Did you start smoking again?

SH19 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

What year did you start smoking next?

SH20 \_\_\_\_\_

\_\_\_\_\_  
(write year)

Did you ever stop smoking cigarettes  
for six consecutive months or longer?

SH21 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to SH23)  
98 ☐ DK (go to SH23)  
99 ☐ R (go to SH23)

What year did you stop smoking ?

SH22 \_\_\_\_\_

\_\_\_\_\_  
(write year)

How many cigarettes per day  
did you smoke?

SH23 \_\_\_\_\_

# cigarettes \_\_\_\_\_

- 98 ☐ DK  
99 ☐ R

Were the cigarettes you smoked,  
filtered?

SH24 \_\_\_\_\_

- 1 ☐ Filtered  
2 ☐ Non-Filtered  
3 ☐ Both  
98 ☐ DK  
99 ☐ R

How did you inhale?

SH25 \_\_\_\_\_

- 1 ☐ Not at all  
2 ☐ Mouth or throat  
3 ☐ Chest  
98 ☐ DK  
99 ☐ R

Did you start smoking again?

SH26 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

What year did you start smoking next?

SH27 \_\_\_\_\_

\_\_\_\_\_  
(write year)

Did you ever stop smoking cigarettes  
for six consecutive months or longer?

SH28 \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No (go to SH30)  
98 ☐ DK (go to SH30)  
99 ☐ R (go to SH30)

What year did you stop smoking ?

SH29 \_\_\_\_\_

\_\_\_\_\_  
(write year)



How many cigarettes per day  
did you smoke?

SH30 \_\_\_\_\_

# cigarettes \_\_\_\_\_

98 ☐ DK

99 ☐ R

Were the cigarettes you smoked,  
filtered?

SH31 \_\_\_\_\_

1 ☐ Filtered

2 ☐ Non-Filtered

3 ☐ Both

98 ☐ DK

99 ☐ R

How did you inhale?

SH32 \_\_\_\_\_

1 ☐ Not at all

2 ☐ Mouth or throat

3 ☐ Chest

98 ☐ DK

99 ☐ R

Did you start smoking again?

SH33 \_\_\_\_\_

1 ☐ Yes

2 ☐ No

98 ☐ DK

99 ☐ R

END OF SMOKING SECTION

**OCCUPATIONAL HISTORY**

**INTRODUCTION:** Now I'd like to ask you some questions about the kind of work you have done. We are interested in every job, at home, or outside the home, part-time or full-time, paid or unpaid, including any self-employment, or work for companies or family businesses, which you held for a total of six continuous months or longer since you first began working. If you held more than one job at a company, or more than one job at the same time, we would like to talk about each job separately. Also, please include any time while in the military. If you get tired during this section, we can stop and resume at another time. Let's begin by listing only the employer name, job title, and years worked at each job.

Are you currently employed,  
not employed, (a home maker), or retired?  
(DO NOT ASK HOME MAKER IF SUBJECT IS MALE.)

OH1 \_\_\_\_\_

GO TO  
OH4

- 1 ☐ Employed  
2 ☐ Unemployed  
3 ☐ Retired  
4 ☐ Home maker

A. In what year did you start being a home maker?

OH2 \_\_\_\_\_

\_\_\_\_\_  
(write year)

B. Did you ever have any jobs outside the home?

OH3 \_\_\_\_\_

GO TO  
P. 29, OC3

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**What was the name, city, state and county  
of the company where you (first/next)  
worked for six months or longer?**

**OH4** Text  
No code

**(IF MORE THAN 4 JOBS,  
USE CONTINUATION SHEETS)**

NAME: \_\_\_\_\_

\_\_\_\_\_

City, State, County

**What was the job title of the (first/next) job  
you held for six months or longer at (COMPANY)?**

**OH5** \_\_\_\_\_

\_\_\_\_\_  
(JOB TITLE/ COMPANY)

**In what year did you start working as  
(JOB TITLE) at (COMPANY)?**

**OH6** \_\_\_\_\_

\_\_\_\_\_  
(write year)

**In what year did you stop working  
as a (JOB TITLE)?**

**OH7** \_\_\_\_\_

**GO TO NEXT JOB.  
WHEN YOU HAVE OBTAINED OH4-OH7  
FOR FIRST JOB, GO TO OH20.**

\_\_\_\_\_  
(write year)

What was the name, city and county  
of the company where you (first/next)  
worked for six months or longer?

OH8 Text  
No Code

NAME: \_\_\_\_\_

\_\_\_\_\_

City, State, County

What was the job title of the (first/next) job  
you held for six months or longer at (COMPANY)?

OH9 \_\_\_\_\_

\_\_\_\_\_  
(JOB TITLE/COMPANY)

In what year did you start working as  
(JOB TITLE) at (COMPANY)?

OH10 \_\_\_\_\_

\_\_\_\_\_  
(write year)

In what year did you stop working  
as a (JOB TITLE)?  
GO TO NEXT JOB.

OH11 \_\_\_\_\_

WHEN YOU HAVE OBTAINED OH8-OH11  
FOR SECOND JOB, GO TO OH24.

\_\_\_\_\_  
(write year)

What was the name, city and county  
of the company where you (first/next)  
worked for six months or longer?

OH12

(IF MORE THAN 4 JOBS,  
USE CONTINUATION SHEETS)

NAME: \_\_\_\_\_

\_\_\_\_\_  
City,

State,

County

What was the job title of the (first/next) job  
you held for six months or longer at (COMPANY)?

OH13

\_\_\_\_\_  
(JOB TITLE/COMPANY)

In what year did you start working as  
(JOB TITLE) at (COMPANY)?

OH14

\_\_\_\_\_  
(write year)

In what year did you stop working  
as a (JOB TITLE)?

OH15

GO TO NEXT JOB.  
WHEN YOU HAVE OBTAINED OH12-OH15  
FOR THIRD JOB, GO TO OH28.

\_\_\_\_\_  
(write year)

What was the name, city and county  
of the company where you (first/next)  
worked for six months or longer?

OH16

(IF MORE THAN 4 JOBS,  
USE CONTINUATION SHEETS)

NAME: \_\_\_\_\_

\_\_\_\_\_  
City, State, County

What was the job title of the (first/next) job  
you held for six months or longer at (COMPANY)?

OH17

\_\_\_\_\_  
(JOB TITLE/COMPANY)

In what year did you start working as  
(JOB TITLE) at (COMPANY)?

OH18

\_\_\_\_\_  
(write year)

In what year did you stop working  
as a (JOB TITLE)?

OH19

GO TO NEXT JOB.  
WHEN YOU HAVE OBTAINED OH16-OH19  
FOR FOURTH JOBS, GO TO OH32.

\_\_\_\_\_  
(write year)

- 01 = Manufacturer
- 02 = Retailer
- 03 = Wholesaler
- 04 = Service Provider
- 05 = Construction
- 06 = Mining
- 07 = Farming/Fishing/  
Forestry
- 08 = Government
- 09 = Other Specify (in table)
- 10 = Shipyard

---

You said you worked as a (OH5) from (OH6)  
to (OH7) at (OH4). What type of business was (OH4)?  
Was it a ... (READ KEY)?

OH20

Code \_\_\_\_\_  
(industry)

Other \_\_\_\_\_  
(specify)

---

What did (COMPANY) make,  
or what service did they provide?

OH21

---

(Industry description/Same as OH20)

---

What were your main activities or  
duties as a (JOB TITLE) at (COMPANY)?

OH22

---

(Duties)

---

What kinds of chemicals or  
materials did you handle in that job?

OH23

---

(Chemical/Materials)

---

You said you worked as a (OH9) from (OH10)  
to (OH11) at (OH8). What type of business was (OH8)?  
Was it a ... (READ KEY)?

HO24

Code \_\_\_\_\_  
(industry)

Other \_\_\_\_\_  
(specify)

---

What did (COMPANY) make,  
or what service did they provide?

OH25

---

(Industry description/Same as OH24)

---

What were your main activities or  
duties as a (JOB TITLE) at (COMPANY)?

OH26

---

(Duties)

---



What kinds of chemicals or materials did you handle in that job?

OH27

(Chemicals/Materials)

You said you worked as a (OH13) from (OH14) to (OH15) at (OH12). What type of business was (OH12)? Was it a . . . (READ KEY)?

OH28

Code \_\_\_\_\_  
(industry)

Other \_\_\_\_\_  
(specify)

What did (COMPANY) make, or what service did they provide?

OH29

(Industry description/Same as OH28)

What were your main activities or duties as a (JOB TITLE) at (COMPANY)?

OH30

(Duties)

What kinds of chemicals or materials did you handle in that job?

OH31

(Chemicals/Materials)

You said you worked as a (OH17) from (OH18) to (OH19) at (OH16). What type of business was (OH16)? Was it a . . . (READ KEY)?

OH32

Code \_\_\_\_\_  
(industry)

Other \_\_\_\_\_  
(specify)

What did (COMPANY) make, or what service did they provide?

OH33

(Industry description/Same as OH32)

What were your main activities or duties as a (JOB TITLE) at (COMPANY)?

OH34

(Duties)

What kinds of chemicals or  
materials did you handle in that job?

OH35

(Chemicals/Materials)

What kinds of tools and equipment  
did you use?

OH36

(Tools/Equipment)

How many months per year  
did you work on this job?

OH37

(months/year)

On average, about how many  
hours per week did you work on this job?

OH38

(hours/week)

While on this job, did you ever  
work near diesel or other types of engines  
or did you smell diesel or other types of exhaust?

OH39

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**How did you commute to this job?  
IF >1 MEANS, PROBE FOR PRIMARY**

**OH40** \_\_\_\_\_

**(OR THAT WAS FOR LONGEST  
DISTANCE OR TIME) AND RECORD  
ADDITIONAL MEANS IN SPACES PROVIDED.**

1 Bus/Tramway

2 Metro/Train

3 Car

4 Bicycle

5 Motorcycle

6 Foot

7 Animal

8 Other \_\_\_\_\_

(specify)

98 DK (skip to OH57)

99 R (skip to OH57)

**What kinds of tools and equipment  
did you use?**

**OH41**

\_\_\_\_\_  
\_\_\_\_\_  
(Tools/Equipment)

**How many months per year  
did you work on this job?**

**OH42** \_\_\_\_\_

\_\_\_\_\_  
(months/year)

On average, about how many  
hours per week did you work on this job?

OH43

---

(hours/week)

---

While on this job, did you ever  
work near diesel or other types of engines  
or did you smell diesel or other types of exhaust?

OH44

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R
- 

How did you commute to this job?  
IF >1 MEANS, PROBE FOR PRIMARY  
(OR THAT WAS FOR LONGEST  
DISTANCE OR TIME) AND RECORD  
ADDITIONAL MEANS IN SPACES PROVIDED.

OH45

- 1 Bus/Tramway  
2 Metro/Train  
3 Car  
4 Bicycle  
5 Motorcycle  
6 Foot  
7 Animal  
8 Other \_\_\_\_\_

(specify)

98 DK (skip to OH62)

99 R (skip to OH62)

---

What kinds of tools and equipment  
did you use?

OH46

---

(Tools/Equipment)

---

How many months per year  
did you work on this job?

OH47

\_\_\_\_\_  
(months/year)

On average, about how many  
hours per week did you work on this job?

OH48

\_\_\_\_\_  
(hours/week)

While on this job, did you ever  
work near diesel or other types of engines  
or did you smell diesel or other types of exhaust?

OH49

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

How did you commute to this job?  
IF >1 MEANS, PROBE FOR PRIMARY  
(OR THAT WAS FOR LONGEST  
DISTANCE OR TIME) AND RECORD  
ADDITIONAL MEANS IN SPACES PROVIDED.

OH50

- 1 Bus/Tramway  
2 Metro/Train  
3 Car  
4 Bicycle  
5 Motorcycle  
6 Foot  
7 Animal  
8 Other \_\_\_\_\_

(specify)

98 DK (skip to OH67)

99 R (skip to OH67)

What kinds of tools and equipment  
did you use?

OH51

---

---

(Tools/Equipment)

---

How many months per year  
did you work on this job?

OH52

---

---

(months/year)

---

On average, about how many  
hours per week did you work on this job?

OH53

---

---

(hours/week)

---

While on this job, did you ever  
work near diesel or other types of engines  
or did you smell diesel or other types of exhaust?

OH54

---

- |    |                          |     |
|----|--------------------------|-----|
| 1  | <input type="checkbox"/> | Yes |
| 2  | <input type="checkbox"/> | No  |
| 98 | <input type="checkbox"/> | DK  |
| 99 | <input type="checkbox"/> | R   |
-

**How did you commute to this job?**  
**IF >1 MEANS, PROBE FOR PRIMARY**  
**(OR THAT WAS FOR LONGEST**  
**DISTANCE OR TIME) AND RECORD**  
**ADDITIONAL MEANS IN SPACES PROVIDED.**

OH55

1 Bus/Tramway

2 Metro/Train

3 Car

4 Bicycle

5 Motorcycle

6 Foot

7 Animal

8 Other

(specify)

98 DK (skip to OH72)

99 R (skip to OH72)

**How long did it take you to get to this job,**  
**one way, from your house?**  
**(ENTER HOURS AND MINUTES.)**

OH56

(hours)

(code total minutes) ↑

(minutes)

**At this job, on average, about**  
**how many people around you smoked?**

OH57

- |    |                          |            |
|----|--------------------------|------------|
| 0  | <input type="checkbox"/> | 0          |
| 1  | <input type="checkbox"/> | 1          |
| 2  | <input type="checkbox"/> | 2-4        |
| 3  | <input type="checkbox"/> | 5-9        |
| 4  | <input type="checkbox"/> | 10-19      |
| 5  | <input type="checkbox"/> | 20 or more |
| 98 | <input type="checkbox"/> | DK         |
| 99 | <input type="checkbox"/> | R          |



Was your work at this job mostly indoors, mostly outdoors, or about the same amount indoors and outdoors?

OH58 \_\_\_\_\_

- 1 ☐ Mostly Indoors
- 2 ☐ Mostly Outdoors
- 3 ☐ Both Indoors and Outdoors
- 98 ☐ DK
- 99 ☐ R

What was the primary source of drinking water when you worked there?

OH59 \_\_\_\_\_

- 1 ☐ Municipal water supply
- 2 ☐ Well
- 3 ☐ Spring
- 4 ☐ Bottled
- 5 ☐ Other
- 98 ☐ DK
- 99 ☐ R

In this job, did you ever have to regularly pass long hours without being able to urinate?

OH60 \_\_\_\_\_

GO TO MODULE, IF APPLICABLE.

OTHERWISE, GO BACK TO OH20 FOR NEXT JOB.

**NOTE: IF BOTH AN INDUSTRY MODULE (3 LETTER CODE, ENDING IN "I") AND A JOB MODULE (2 LETTER CODE) APPLY TO ONE JOB, COMPLETE ONLY THE JOB MODULE.**

- 1 ☐ Yes
- 2 ☐ No
- 98 ☐ DK
- 99 ☐ R

How long did it take you to get to this job,  
one way, from your house?  
(ENTER HOURS AND MINUTES.)

OH61

\_\_\_\_\_ (hours) \_\_\_\_\_ (code total minutes) ↑  
\_\_\_\_\_ (minutes)

At this job, on average, about  
how many people around you smoked?

OH62

- 0 ☐ 0  
1 ☐ 1  
2 ☐ 2-4  
3 ☐ 5-9  
4 ☐ 10-19  
5 ☐ 20 or more  
98 ☐ DK  
99 ☐ R

Was your work at this job mostly  
indoors, mostly outdoors, or about the  
same amount indoors and outdoors?

OH63

- 1 ☐ Mostly Indoors  
2 ☐ Mostly Outdoors  
3 ☐ Both Indoors and Outdoors  
98 ☐ DK  
99 ☐ R

What was the primary source of  
drinking water when you worked there?

OH64

- 1 ☐ Municipal water supply  
2 ☐ Well  
3 ☐ Spring  
4 ☐ Bottled  
5 ☐ Other  
98 ☐ DK  
99 ☐ R

In this job, did you ever have to regularly  
pass long hours without being able to urinate?  
GO TO MODULE, IF APPLICABLE.  
OTHERWISE, GO BACK TO OH20 FOR NEXT JOB.

OH65 \_\_\_\_\_

NOTE: IF BOTH AN INDUSTRY MODULE (3  
LETTER CODE, ENDING IN "I") AND A JOB  
MODULE (2 LETTER CODE) APPLY TO ONE  
JOB, COMPLETE ONLY THE JOB MODULE.

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

How long did it take you to get to this job,  
one way, from your house?  
(ENTER HOURS AND MINUTES.)

OH66 \_\_\_\_\_

(code total minutes) ↑

\_\_\_\_\_  
(hours)\_\_\_\_\_  
(minutes)

At this job, on average, about  
how many people around you smoked?

OH67 \_\_\_\_\_

- 0 ☐ 0  
1 ☐ 1  
2 ☐ 2-4  
3 ☐ 5-9  
4 ☐ 10-19  
5 ☐ 20 or more  
98 ☐ DK  
99 ☐ R

Was your work at this job mostly  
indoors, mostly outdoors, or about the  
same amount indoors and outdoors?

OH68 \_\_\_\_\_

- 1 ☐ Mostly Indoors  
2 ☐ Mostly Outdoors  
3 ☐ Both Indoors and Outdoors  
98 ☐ DK  
99 ☐ R

What was the primary source of  
drinking water when you worked there?

OH69 \_\_\_\_\_

- 1 ☐ Municipal water supply  
2 ☐ Well  
3 ☐ Spring  
4 ☐ Bottled  
5 ☐ Other  
98 ☐ DK  
99 ☐ R

In this job, did you ever have to regularly  
pass long hours without being able to urinate?  
GO TO MODULE, IF APPLICABLE.  
OTHERWISE, GO BACK TO OH20 FOR NEXT JOB.


OH70 \_\_\_\_\_

NOTE: IF BOTH AN INDUSTRY MODULE (3  
LETTER CODE, ENDING IN "I") AND A JOB  
MODULE (2 LETTER CODE) APPLY TO ONE  
JOB, COMPLETE ONLY THE JOB MODULE.

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

How long did it take you to get to this job,  
one way, from your house?  
(ENTER HOURS AND MINUTES.)

OH71 \_\_\_\_\_

\_\_\_\_\_ (hours)  
\_\_\_\_\_ (minutes)  
(code total minutes) 

At this job, on average, about  
how many people around you smoked?

OH72 \_\_\_\_\_

- 0 ☐ 0
- 1 ☐ 1
- 2 ☐ 2-4
- 3 ☐ 5-9
- 4 ☐ 10-19
- 5 ☐ 20 or more
- 98 ☐ DK
- 99 ☐ R

Was your work at this job mostly  
indoors, mostly outdoors, or about the  
same amount indoors and outdoors?

OH73 \_\_\_\_\_

- 1 ☐ Mostly Indoors
- 2 ☐ Mostly Outdoors
- 3 ☐ Both Indoors and Outdoors
- 98 ☐ DK
- 99 ☐ R

What was the primary source of  
drinking water when you worked there?

OH74 \_\_\_\_\_

- 1 ☐ Municipal water supply
- 2 ☐ Well
- 3 ☐ Spring
- 4 ☐ Bottled
- 5 ☐ Other
- 98 ☐ DK
- 99 ☐ R

In this job, did you ever have to regularly  
pass long hours without being able to urinate?

OH75

GO TO MODULE, IF APPLICABLE.

OTHERWISE, GO BACK TO OH20 FOR NEXT JOB.

NOTE: IF BOTH AN INDUSTRY MODULE (3  
LETTER CODE, ENDING IN "I") AND A JOB  
MODULE (2 LETTER CODE) APPLY TO ONE  
JOB, COMPLETE ONLY THE JOB MODULE.

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

---

END OF JOB HISTORY

## OCCUPATIONAL EXPOSURE

Have you ever been exposed, either on the job or off, to any of the following substances or processes for a lifetime total of a year or more?

OC3 \_\_\_\_\_

EXAMPLE: If you have been exposed to a substance for 2 months at a time for 6 years or more, that constitutes a lifetime total of a year or more.

Have you ever been exposed to ASBESTOS (for a year or more)?

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer : [go to OC4]

How long were you exposed to this substance?

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

OC3a \_\_\_\_\_

Were you exposed to this substance at one of the jobs previously listed ?

OC3b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to DIESEL FUEL or EXHAUST (for a year or more)?

OC4 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer : [go to OC5 ]

**How long were you exposed to this substance?**

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

OC4a \_\_\_\_\_

**Were you exposed to this substance at one of the jobs previously listed?**

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

OC4b \_\_\_\_\_

**Have you ever been exposed to GASOLINE or GASOLINE EXHAUST (for a year or more)?**

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

OC5 \_\_\_\_\_

*\*Interviewer : [go to OC6]*

**How long were you exposed to this substance?**

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

OC5a \_\_\_\_\_

**Were you exposed to this substance at one of the jobs previously listed?**

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

OC5b \_\_\_\_\_



**Have you ever been exposed to DYESTUFFS (material or clothing dyes)  
(for a year or more)?**

OC6 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer : [go to OC7]*

**How long were you exposed to this  
substance?**

OC6a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 ☐ Years  
98 ☐ DK  
99 ☐ R

**Were you exposed to this substance at one of  
the previously jobs listed?**

OC6b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**Have you ever been exposed to ORGANIC  
SOLVENTS (for a year or more)?**  
*(Interviewer: show respondent card B)*

OC7 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer : [go to OC8]*

**How long were you exposed to this  
substance?**

OC7a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 ☐ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC7b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to DDT (for a year or more)?

OC8 \_\_\_\_\_

- 1 ☐ Yes  
\*3 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer: [go to OC9]

How long were you exposed to this substance?

OC8a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC8b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to HERBICIDES (for a year or more)?

OC9 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer : [go to OC10]

How long were you exposed to this substance?

OC9a

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC9b

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to INSECTICIDES (for a year or more)?

OC10

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer: [go to OC11]

How long were you exposed to this substance?

OC10a

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC10b

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to PAINTS (for a year or more)?

OC11

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer : [go to OC12]

How long were you exposed to this substance?

OC11a

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC11b

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to PAINT THINNERS (for a year or more)?

OC12

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer : [go to OC13]

How long were you exposed to this substance?

OC12a

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC12b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to MINERAL, CUTTING, or LUBRICATING OIL (for a year or more)?

OC13 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer :[go to OC14]

How long were you exposed to this substance?

OC13a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC13b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to COAL, TAR, SOOT, PITCH, CREOSOTE, or ASPHALT (for a year or more)?

OC14 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer :[go to OC15]*

**How long were you exposed to this substance?**

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

OC14a \_\_\_\_\_

**Were you exposed to this substance at one of the jobs previously listed?**

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

OC14b \_\_\_\_\_

**Have you ever been exposed to RUBBER or CABLE MAKING (for a year or more)?**

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

OC15 \_\_\_\_\_

*\*Interviewer :[go to OC16]*

**How long were you exposed to this Substance?**

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

OC15a \_\_\_\_\_

**Were you exposed to this substance at one of the jobs previously listed?**

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

OC15b \_\_\_\_\_

Have you ever been exposed to **PRINTING INKS** (for a year or more)?

OC16 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer: [go to O17]*

How long were you exposed to this substance?

OC16a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC16b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to **PLASTIC PRODUCTION** (for a year or more)?

OC17 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer: [go to OC18]*

How long were you exposed to this substance?

OC17a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC17b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to LEATHER PRODUCTION (for a year or more)?

OC18 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer: [go to OC19]*

How long were you exposed to this substance?

OC18a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC18b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to LUMBER INDUSTRY or WOOD DUST (for a year or more)?

OC19 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*Interviewer: [go to OC20]*



How long were you exposed to this substance?

OC19a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed?

OC19b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

Have you ever been exposed to GLUE OR ADDITIVES (for a year or more)?

OC20 \_\_\_\_\_

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

\*Interviewer: [go to OC21]

How long were you exposed to this substance?

OC20a \_\_\_\_\_

- 0 ☐ Less than 1 year  
1-70 \_\_\_\_\_ Years  
98 ☐ DK  
99 ☐ R

Were you exposed to this substance at one of the jobs previously listed ?

OC20b \_\_\_\_\_

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**Have you ever been exposed to METALS or  
METAL DUST (for a year or more)?**

OC21

- 1 ☐ Yes  
\*2 ☐ No  
\*98 ☐ DK  
\*99 ☐ R

*\*Interviewer: [go to DTX2]*

**How long were you exposed to this  
substance?**

OC21a

- 0 ☐ Less than 1 year  
1-70 ☐ Years  
98 ☐ DK  
99 ☐ R

**Were you exposed to this substance at one of  
the jobs previously listed?**

OC21b

- 1 ☐ Yes, specify job title [specify]  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**END OF EXPOSURE SECTION**

## DIET

The next series of questions will be about your diet. The year before \_\_\_\_\_ [Ref Date] did you change your diet?

DTX2 \_\_\_\_\_

- 1 ☐ Yes [go to DCHG]  
2 ☐ No  
98 ☐ DK  
99 ☐ R  
[ go to mfil]

[Interviewer if diet has changed in last year, use the prior year for the questionnaire. [For instance if this is 1998, but diet changed, use 1997. If diet did not change, use 1997.]

The next questions ask about your use and preparation of meat and eggs during \_\_\_\_\_.

D001 \_\_\_\_\_

I will ask the number of times you ate the food items as well as how they were prepared. Some of the information may be hard to remember. Please try to give your most accurate estimation. Common methods of cooking include pan-frying, deep frying, oven broiling, baking, grilling, and microwaving.

*Interviewer: show card C*

During \_\_\_\_\_, how often did you eat eggs ?

DO2a \_\_\_\_\_

*Interviewer : show card D*

- 1 ☐ Never [go to DO3a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

How many eggs did you usually eat per serving ?

DO2b

1-80 enter number

98 ☐ DK

99 ☐ R

During \_\_\_\_, when you ate eggs, how often were they pan-fried, such as sunny side-up ?

DO2c

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate eggs, how often were they prepared in any other way ?

DO2d

*Interviewer: other than pan-fried*

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, how often did you eat  
hamburgers and cheeseburgers including  
fast food ?

DO3a

*Interviewer: show card D*

- 1 ☐ Never [ go to DO5a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of  
hamburgers and cheeseburgers ?

DO3b

*Interviewer: compared to this example*

- 1-80 \_\_\_\_ oz  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hamburgers and  
cheeseburgers, how often were they pan fried?

DO3c

*Interviewer : show card D*

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hamburgers and cheeseburgers, how often were they grilled or barbecued ?

DO3d

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per week
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate hamburgers and cheeseburgers, how often were they oven-broiled ?

DO3e

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, when you ate hamburgers and cheeseburgers, how often were they prepared in a way that I haven't mentioned ?

D03f \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, how often did you eat beef steaks ?

D05a \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never [go to D07a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of beef steaks ?

D05b \_\_\_\_\_

*Interviewer: compared to this example*

1-80 \_\_\_\_\_ oz

98 ☐ DK

99 ☐ R

During \_\_\_\_\_, when you ate beef steaks, how often were they pan-fried ?

Interviewer: show card D

DO5c

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

During \_\_\_\_\_, when you ate beef steaks, how often were they grilled or barbecued ?

Interviewer: show card D

DO5d

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-



During \_\_\_\_\_, when you ate beef steaks, how often were they oven-broiled ?

Interviewer: show card D

DO5e \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, when you ate beef steaks, how often were they prepared in a way that I haven't mentioned ?

Interviewer: show card D

DO5f \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

**During \_\_\_\_\_, how often did you eat pork chops or ham steaks ?**

*Interviewer: show card D*

D07a \_\_\_\_\_

- 1 ☐ Never [go to D08a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

**What was your usual serving size of pork chops or ham steaks ?**

*Interviewer : compared to this example*

D07b \_\_\_\_\_

- 1-80 \_\_\_\_\_ oz
- 98 ☐ DK
  - 99 ☐ R

**During \_\_\_\_\_, when you ate pork chops or ham steaks, how often were they pan-fried?**

*Interviewer : show card D*

D07c \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate pork chops or ham steaks, how often were they oven-broiled?

DO7d

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate pork chops or ham steaks, how often were they baked or roasted?

DO7e

*Interviewer : show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate pork chops or ham steaks, how often were they prepared in a way that I haven't mentioned ?

Interviewer : show card D

DO7f \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, how often did you eat bacon ?

Interviewer: show card D

DO8a \_\_\_\_\_

- 1 ☐ Never [go to D09a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of bacon ?

Interviewer: in number of strips

DO8b \_\_\_\_\_

- 1-80 \_\_\_\_\_ strips
- 98 ☐ DK
  - 99 ☐ R

During \_\_\_\_\_, when you ate bacon how often  
was it Pan-fried ?

Interviewer: show card D

DO8c \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, when you ate bacon, how often  
was it grilled or barbecued ?

Interviewer: show card D

DO8d \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

**During \_\_\_\_\_, when you ate bacon, how often  
was it oven-broiled?**

*Interviewer: show card D*

DO8e \_\_\_\_\_

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

**During \_\_\_\_\_, when you ate bacon, how often  
was it microwaved?**

*Interviewer: show card D*

DO8f \_\_\_\_\_

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-

During \_\_\_\_, when you ate bacon, how often was it prepared in a way that I haven't mentioned?

Interviewer: show card D

DO8g

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, how often did you eat sausage (including breakfast, Italian, Polish, and bratwurst)?

Interviewer: show card D

DO9a

- 1 ☐ Never [go to D10a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of sausage?

Interviewer: 1 large or 2 small as a serving

DO9b

- 1-80 \_\_\_\_\_ servings
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate sausage , how  
often was it pan-fried?

*Interviewer: show card D*

DO9c

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate sausage, how  
often was it grilled or barbecued?

*Interviewer: show card D*

DO9d

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R



During \_\_\_\_, when you ate sausage, how often was it oven-broiled?

DO9e

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate sausage, how often was it microwaved?

DO9f

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate sausage, how often was it prepared in a way that I haven't mentioned ?

Interviewer: show card D

D09g

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, how often did you eat hot dogs or franks ?

Interviewer: show card D

D10a

- 1 ☐ Never [go to D11a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of hot dogs or franks ?

Interviewer: in number of hot dogs

D10b

- 1-80 \_\_\_\_ hot dogs  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hot dogs or  
franks, how often were they pan-fried?

Interviewer: show card D

D10c

- 1 ☐ Never [go to D26a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hot dogs or  
franks, how often were they oven-broiled?

Interviewer: show card D

D10d

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

**During \_\_\_\_, when you ate hot dogs or  
franks, how often were they grilled or  
barbecued ?**

D10e

*Interviewer: show card D*

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

**During \_\_\_\_, when you ate hot dogs or  
franks, how often were they prepared in a  
way that I have not mentioned ?**

D10f

*Interviewer: show card D*

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-

During \_\_\_\_, how often did you eat fried chicken?

Interviewer: show card D

D11a

- 1 ☐ Never [go to D12a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of fried chicken?

Interviewer: compared to these examples

D11b

1-80 \_\_\_\_ oz

98 ☐ DK

99 ☐ R

During \_\_\_\_, when you ate fried chicken, how often was it deep fat fried/fast food?

Interviewer: show card D

D11c

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

During \_\_\_\_\_, when you ate fried chicken,  
how often was it pan fried ?

D11d \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

Other than fried chicken, during \_\_\_\_\_, how  
often did you eat chicken or turkey (including  
on sandwiches) ?

D12a \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never [go to D13a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of the  
chicken or turkey ?

D12b \_\_\_\_\_

*Interviewer: compared to this example*

1 serving = 2 oz.

- 1-80 \_\_\_\_\_ servings
- 98 ☐ DK
  - 99 ☐ R

During \_\_\_\_, when you ate chicken or turkey, how often was it baked or roasted ?

D12c

*Interviewer: show card D*

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R
- 

During \_\_\_\_, when you ate chicken or turkey, how often was it stewed ?

D12d

*Interviewer: show card D*

- 1 ☐ Never  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R
-

During \_\_\_\_, when you ate chicken or turkey, how often was it oven-broiled ?

*Interviewer: show card D*

D12e

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

During \_\_\_\_, when you ate chicken or turkey, how often was it grilled or barbecued ?

*Interviewer: show card D*

D12f

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-



During \_\_\_\_\_, when you ate chicken or turkey, how often was it prepared in a way that I have not mentioned ?

*Interviewer: show card D*

D12g \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, how often did you eat fried fish or fish sandwiches (including other fried seafood) ?

*Interviewer: show card D*

D13a \_\_\_\_\_

- 1 ☐ Never [go to D14a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of fried fish or fish sandwich ?

*Interviewer: compared to these examples*

D13b \_\_\_\_\_

- 1-80 \_\_\_\_\_ oz
- 98 ☐ DK
  - 99 ☐ R

During \_\_\_\_, when you ate fried fish or a fish sandwich, how often were they pan-fried ?

D13c \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate fried fish or a fish sandwich, how often were they deep fat fried or fast food ?

D13d \_\_\_\_\_

*Interviewer: show card D*

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_\_, how often did you eat other fish besides fried fish (including tuna and shrimp)?

*Interviewer: show card D*

D14a \_\_\_\_\_

- 1 ☐ Never [go to D15a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of other fish besides fried fish?

*Interviewer: compared to these examples*

D14b \_\_\_\_\_

- 1-80 \_\_\_\_\_ oz
- 98 ☐ DK
  - 99 ☐ R

During \_\_\_\_\_, when you ate other fish besides fried fish, how often was it oven-broiled?

*Interviewer: show card D*

D14c \_\_\_\_\_

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, when you ate other fish besides  
fried fish, how often was it baked ?

*Interviewer: show card D*

D14d

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

During \_\_\_\_, when you ate other fish besides  
fried fish, how often was it in a casserole ?

*Interviewer: show card D*

D14e

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-

During \_\_\_\_, when you ate other fish besides  
fried fish, how often was it in a salad ?

D14f

Interviewer: show card D

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

During \_\_\_\_, when you ate other fish besides  
fried fish, how often was it prepared in a way  
that I have not mentioned ?

D14g

Interviewer: show card D

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-

During \_\_\_\_, how often did you eat roast beef (including sandwiches)?

Interviewer: show card D

D15a

- 1 ☐ Never [go to D16a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of roast beef ?

Interviewer: compared to these examples

D15b

- 1-80 \_\_\_\_\_ oz
- 98 ☐ DK
  - 99 ☐ R

During \_\_\_\_, how often did you eat beef stew or potpie with carrots or other vegetables ?

Interviewer: show card D

D16a

- 1 ☐ Never [go to D17a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

**What was your usual serving size of beef stew  
or potpie with carrots or other vegetables ?**

*Interviewer: compared to this example*

D16b \_\_\_\_\_

1-80 \_\_\_\_\_ oz

98 ☐ DK

99 ☐ R

**During \_\_\_\_\_, how often did you eat other  
ground beef ( include meat loaf or taco)?**

*Interviewer: show card D*

D17a \_\_\_\_\_

- 1 ☐ Never [go to D18a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

**What was your usual serving size of ground  
beef ?**

*Interviewer: 1 cup = 8 ounces*

D17b \_\_\_\_\_

1-80 \_\_\_\_\_ oz

98 ☐ DK

99 ☐ R

During \_\_\_\_, how often did you eat meat gravies made with meat drippings?

Interviewer: show card D

D18a

- 1 ☐ Never [go to D19a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

What was your usual serving size of meat gravies ?

Interviewer: compared to this example of 2 tablespoons

D18b

- 1-80 \_\_\_\_\_ teaspoons
- 98 ☐ DK
- 99 ☐ R

During \_\_\_\_, how often did you eat ham, bologna, salami, and other lunch meats?  
(Not including chicken, turkey or roast beef)

Interviewer: show card D

D19a

- 1 ☐ Never [go to D20a]
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R



What was your usual serving size of ham,  
bologna, salami, and other luncheon meats ?

*Interviewer: compared to this example*

D19b

1-80 \_\_\_\_\_ oz

98 ☐ DK

99 ☐ R

During \_\_\_\_\_, how often did you eat spaghetti,  
lasagna, or pasta with tomato and meat sauce ?

*Interviewer: show card D*

D20a

- 1 ☐ Never [go to D21a ]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of spaghetti,  
lasagna, or pasta with tomato and meat sauce ?

*Interviewer: 1 cup = 8 ounces*

D20b

1-80 \_\_\_\_\_ oz

98 ☐ DK

99 ☐ R

During \_\_\_\_, how often did you eat soups containing meat such as vegetable beef, chicken, etc?

Interviewer: show card D

D21a

- 1 ☐ Never [go to D22a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of soups containing meat such as vegetable beef, chicken, etc ?

Interviewer: 1 cup = 8 ounces

D21b

- 1-80 \_\_\_\_ oz  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, how often did you eat toast at any meal ?

Interviewer: show card D

D22a

- 1 ☐ Never [go to D23a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What was your usual serving size of toast ?

D22b

Interviewer: in number of slices \_\_\_\_\_

1-80 \_\_\_\_\_ (slices)

98 ☐ DK

99 ☐ R

During \_\_\_\_\_, when you ate the toast, how  
was it usually toasted ?

D22c

Interviewer: show card D-2

1 ☐ Did not eat

3 ☐ Light

5 ☐ Medium

7 ☐ Dark

9 ☐ Very dark

98 ☐ DK

99 ☐ R

During \_\_\_\_\_, how often did you eat fried  
bread (2 hushpuppies = 1 slice)?

D23a

Interviewer : show card D and D-3

1 ☐ Never [go to D24a]

3 ☐ Less than once per month

5 ☐ Once per month

7 ☐ 2-3 times per month

9 ☐ Once per week

11 ☐ Twice per week

13 ☐ 3-4 times per week

15 ☐ 5-6 times per week

17 ☐ Once per day

19 ☐ Two or more times per day

98 ☐ DK

99 ☐ R

What was your usual serving size of fried  
bread (2 hushpuppies = 1 slice)?

D23b

Interviewer: in number of slices

1-80 \_\_\_\_\_ slices

98 ☐ DK

99 ☐ R

During \_\_\_\_, how often did you eat fats on bread that were saved after cooking, for example, bacon fat ?

Interviewer: show card D

D24a

- 1 ☐ Never [go to D26a]  
3 ☐ Less than once per month  
5 ☐ Once per month  
7 ☐ 2-3 times per month  
9 ☐ Once per week  
11 ☐ Twice per week  
13 ☐ 3-4 times per week  
15 ☐ 5-6 times per week  
17 ☐ Once per day  
19 ☐ Two or more times per day  
98 ☐ DK  
99 ☐ R

What were your usual serving size of fats on bread that were saved after cooking ?

Interviewer: In number of slices

D24b

- 1-80 \_\_\_\_\_ Slices  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hamburgers or cheeseburgers, how were they usually cooked ?

Interviewer: show card D-4

D26

- 1 ☐ Did not eat  
3 ☐ Rare  
5 ☐ Medium rare  
7 ☐ Medium  
9 ☐ Medium well  
11 ☐ Well-done  
13 ☐ Very well-done  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate steak, how was it usually cooked ?

Interviewer: show card D-4

D27

- 1 ☐ Did not eat  
3 ☐ Rare  
5 ☐ Medium rare  
7 ☐ Medium  
9 ☐ Medium well  
11 ☐ Well-done  
13 ☐ Very well-done  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate chicken, how was it usually cooked ?

Interviewer: show card D-5

D28

- 1 ☐ Did not eat  
3 ☐ Just until done  
5 ☐ Well-done  
7 ☐ Very well-done  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate pork chops or ham steaks, how was it usually cooked ?

Interviewer: show card D-5

D29

- 1 ☐ Did not eat  
3 ☐ Just until done  
5 ☐ Well-done  
7 ☐ Very well-done  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate hot dogs or franks, how were they usually cooked ?

Interviewer: show card D-6

D30

- 1 ☐ Did not eat  
3 ☐ Just until done  
5 ☐ Well-done/crisp  
7 ☐ Charred  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate bacon, how was it usually cooked ?

Interviewer: show card D-6

D31

- 1 ☐ Did not eat  
3 ☐ Just until done  
5 ☐ Well-done/crisp  
7 ☐ Charred  
98 ☐ DK  
99 ☐ R
- 

During \_\_\_\_, when you ate sausage, how was it usually cooked ?

Interviewer: show card D-6

D32

- 1 ☐ Did not eat  
3 ☐ Just until done  
5 ☐ Well-done/crisp  
7 ☐ Charred  
98 ☐ DK  
99 ☐ R
- 

During \_\_\_\_, when you ate gravies how were they usually cooked ?

D33

- 1 ☐ Did not eat  
3 ☐ Made from meat drippings  
5 ☐ Store bought cans  
7 ☐ Store bought packets  
98 ☐ DK  
99 ☐ R
-

During \_\_\_\_\_, how often did you use the fat  
from fried bacon in your cooking ?

*Interviewer: show card D*

D34 \_\_\_\_\_

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
- 

In the summer months, how often did you eat  
grilled or barbecued meats (including beef,  
pork, chicken, or fish) ?

*Interviewer: show card D*

D35 \_\_\_\_\_

- 1 ☐ Never
  - 3 ☐ Less than once per month
  - 5 ☐ Once per month
  - 7 ☐ 2-3 times per month
  - 9 ☐ Once per week
  - 11 ☐ Twice per week
  - 13 ☐ 3-4 times per week
  - 15 ☐ 5-6 times per week
  - 17 ☐ Once per day
  - 19 ☐ Two or more times per day
  - 98 ☐ DK
  - 99 ☐ R
-

**During the remainder of the year, how often did you eat grilled or barbecued meats (including beef, pork, chicken, or fish) ?**

*Interviewer: show card D*

D36

- 1 ☐ Never
- 3 ☐ Less than once per month
- 5 ☐ Once per month
- 7 ☐ 2-3 times per month
- 9 ☐ Once per week
- 11 ☐ Twice per week
- 13 ☐ 3-4 times per week
- 15 ☐ 5-6 times per week
- 17 ☐ Once per day
- 19 ☐ Two or more times per day
- 98 ☐ DK
- 99 ☐ R

**During \_\_\_\_\_, when you had grilled or barbecued meats, how often were they charred ?**

*Interviewer: show card D-7*

D37

- 1 ☐ Never
- 3 ☐ About ¼ of the time
- 5 ☐ About ½ of the time
- 7 ☐ About ¾ of the time
- 9 ☐ About 100% of the time
- 11 ☐ Did not eat grilled or barbecued meats
- 98 ☐ DK
- 99 ☐ R

**During \_\_\_\_\_, when you had pan-fried or oven-broiled meats, how often were they well-browned ?**

*Interviewer: show card D-7*

D38

- 1 ☐ Never
- 3 ☐ About ¼ of the time
- 5 ☐ About ½ of the time
- 7 ☐ About ¾ of the time
- 9 ☐ About 100% of the time
- 11 ☐ Did not eat pan-fried or oven-broiled meats
- 98 ☐ DK
- 99 ☐ R



Now I would like you to look at some photographs of meats which have been cooked to different degrees. Please decide which photograph most closely resembles the way meat you eat is cooked. If you eat meat that looks to be between categories, you may indicate that. For example, you would select 2.5 to indicate that the meat you eat looks between pictures 2 and 3.

Let's start with beef. Please pay special attention to the way hamburger and steaks look inside as well as outside. For example, there is little difference in the internal appearances of the meat between numbers 3 and 4 for both hamburgers and steaks, but there is more browning and charring on the external surface of number 4 as compared to number 3.

During \_\_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

(Interviewer: show photograph of hamburgers and cheeseburger)

D40 \_\_\_\_\_

- |     |                          |             |
|-----|--------------------------|-------------|
| 0   | <input type="checkbox"/> | Did not eat |
| 0.5 | <input type="checkbox"/> |             |
| 1.0 | <input type="checkbox"/> |             |
| 1.5 | <input type="checkbox"/> |             |
| 2.0 | <input type="checkbox"/> |             |
| 2.5 | <input type="checkbox"/> |             |
| 3.0 | <input type="checkbox"/> |             |
| 3.5 | <input type="checkbox"/> |             |
| 4.0 | <input type="checkbox"/> |             |
| 4.5 | <input type="checkbox"/> |             |
| 98  | <input type="checkbox"/> | DK          |
| 99  | <input type="checkbox"/> | R           |

During \_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

(Interviewer: show photograph of steaks)

D41

- 0 ☐ Did not eat  
0.5 ☐  
1.0 ☐  
1.5 ☐  
2.0 ☐  
2.5 ☐  
3.0 ☐  
3.5 ☐  
4.0 ☐  
4.5 ☐  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

(Interviewer: show photograph of ham steaks)

D42

- 0 ☐ Did not eat  
0.5 ☐  
1.0 ☐  
1.5 ☐  
2.0 ☐  
2.5 ☐  
3.0 ☐  
3.5 ☐  
4.0 ☐  
4.5 ☐  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

D43

*(Interviewer: show photograph of pork chops)*

- 0 ☐ Did not eat  
0.5 ☐  
1.0 ☐  
1.5 ☐  
2.0 ☐  
2.5 ☐  
3.0 ☐  
3.5 ☐  
4.0 ☐  
4.5 ☐  
98 ☐ DK  
99 ☐ R

During \_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

D44

*(Interviewer: show photograph of hot dogs)*

- 0 ☐ Did not eat  
0.5 ☐  
1.0 ☐  
1.5 ☐  
2.0 ☐  
2.5 ☐  
3.0 ☐  
3.5 ☐  
4.0 ☐  
4.5 ☐  
98 ☐ DK  
99 ☐ R

During \_\_\_\_\_, when you ate the following items, which picture most closely resembles the way they were usually cooked ?

*(Interviewer: show photograph of bacon)*

D45 \_\_\_\_\_

- |     |                          |             |
|-----|--------------------------|-------------|
| 0   | <input type="checkbox"/> | Did not eat |
| 0.5 | <input type="checkbox"/> |             |
| 1.0 | <input type="checkbox"/> |             |
| 1.5 | <input type="checkbox"/> |             |
| 2.0 | <input type="checkbox"/> |             |
| 2.5 | <input type="checkbox"/> |             |
| 3.0 | <input type="checkbox"/> |             |
| 3.5 | <input type="checkbox"/> |             |
| 4.0 | <input type="checkbox"/> |             |
| 4.5 | <input type="checkbox"/> |             |
| 98  | <input type="checkbox"/> | DK          |
| 99  | <input type="checkbox"/> | R           |
-

**MEDICAL and FAMILY HISTORY****MEDICAL HISTORY:**

Now I am going to ask you some questions  
About your medical and family history.

MH1 \_\_\_\_\_

Since birth, have you ever had diabetes?

- 1 ☐ Yes  
2 ☐ No (go to next section)  
98 ☐ DK  
99 ☐ R

What was your age when you first learned  
that you had diabetes?

MH1 \_\_\_\_\_

- 1 \_\_\_\_\_ (enter age)  
97 ☐ 97 or older  
98 ☐ DK  
99 ☐ R

Did you take insulin?

MH1b \_\_\_\_\_

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

**FAMILY HISTORY:**

In this section of the questionnaire I would like to ask you about the health history of your immediate blood relatives. This would include your mother, father, sisters, brothers and children. I am interested in living and deceased members of your family, but I am interested only in your full blood relatives not half or adopted relatives.

I am going to start with your parents. Interviewer: Please read across. ie: complete questions about mother first then move to father.

Is your (Relative) still living?	How old is (HE/SHE) ?	How old was (HE/SHE) when (HE/SHE) died?
<b>F001 Mother</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F003) 98 <input type="checkbox"/> DK (go to F004)	<b>F002 Mother</b> _____ ENTER AGE 98 <input type="checkbox"/> DK (go to F004)	<b>F003 Mother</b> _____ ENTER AGE 98 <input type="checkbox"/> DK
<b>F013 Father</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F015) 98 <input type="checkbox"/> DK (go to F016)	<b>F014 Father</b> _____ ENTER AGE* 98 <input type="checkbox"/> DK* *(go to F016)	<b>F015 Father</b> _____ ENTER AGE 98 <input type="checkbox"/> DK

**Cancer Types** (Interviewer: show card E)

- |                       |   |
|-----------------------|---|
| 1 Skin (not melanoma) | 12 Melanoma   |
| 2 Lung                | 13 Oral Cavity  |
| 3 Breast              | 14 Ovary  |
| 4 Colon               | 15 Pancreas   |
| 5 Prostate            | 16 Rectum   |
| 6 Bladder             | 17 Stomach  |
| 7 Brain               | 18 Uterus (corpus uteri)                                    |
| 8 Cervix              | 19 Other Cancer (specify)                                   |
| 9 Kidney              | 20 Cancer of female reproductive organs:<br>site unknown    |
| 10 Leukemia           | 21 Cancer of the large bowel (colon/rectum)<br>site unknown |
| 11 Lymphoma           | 22 Relative had cancer; site unknown                        |

Was your (Relative) ever diagnosed as having any type of cancer?	What was the first type of cancer your (Relative) had?	How old was (HE/SHE) when this cancer was diagnosed?
<b>F004 Mother</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F025a) 98 <input type="checkbox"/> DK (go to F025a)	<b>F005 Mother</b> _____ write cancer name and # (see list above)	<b>F006 Mother</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK
<b>F016 Father</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F025a) 98 <input type="checkbox"/> DK (go to F025a)	<b>F017 Father</b> _____ write cancer name and # (see list above)	<b>F018 Father</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK

**Cancer Types**

- |                       |  |
|-----------------------|--|
| 1 Skin (not melanoma) | 12 Melanoma  |
| 2 Lung                | 13 Oral cavity   |
| 3 Breast              | 14 Ovary   |
| 4 Colon               | 15 Pancreas  |
| 5 Prostate            | 16 Rectum  |
| 6 Bladder             | 17 Stomach   |
| 7 Brain               | 18 Uterine (corpus uteri)                                    |
| 8 Cervix              | 19 Other cancer (specify)                                    |
| 9 Kidney              | 20 Cancer of female reproductive organs,<br>site unknown     |
| 10 Leukemia           | 21 Cancer of the large bowel (colon/rectum),<br>site unknown |
| 11 Lymphoma           | 22 Relative had cancer, site unknown                         |

Did your (RELATIVE) have any other cancer?	What was the next type of cancer your (RELATIVE) had?	How old was (HE/SHE) when this cancer was diagnosed?
<b>F007 Mother</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F020) 98 <input type="checkbox"/> DK (go to F020)	<b>F008 Mother</b> <hr/> write cancer name and # (see list above)	<b>F009 Mother</b> enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK
<b>F019 Father</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to FTX1) 98 <input type="checkbox"/> DK (go to FTX1)	<b>F020 Father</b> <hr/> write cancer name and # (see list above)	<b>F021 Father</b> enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK

Did your (RELATIVE) have any other cancer?	What was the next type of cancer your (RELATIVE) had?	How old was (HE/SHE) when this cancer was diagnosed?
<b>F010 Mother</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to F020) 98 <input type="checkbox"/> DK (go to F020)	<b>F011 Mother</b> <hr/> write cancer name and # (see list above)	<b>F012 Mother</b> enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK
<b>F022 Father</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (go to FTX1) 98 <input type="checkbox"/> DK (go to FTX1)	<b>F023 Father</b> <hr/> write cancer name and # (see list above)	<b>F024 Father</b> enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK

Now I would like to ask you the same questions about your full brothers and sisters. Please include those who are living or deceased, but do not include adopted, foster, half or step brothers and sisters.

---

How many full brothers and sisters do you have? Again, please include any who may have died.

FTX1 \_\_\_\_\_

F025a brothers \_\_\_\_\_ enter number

0 ☐ None98 ☐ DK99 ☐ R

F025a \_\_\_\_\_

F025b sisters \_\_\_\_\_ enter number

0 ☐ None98 ☐ DK99 ☐ R

F025b \_\_\_\_\_

Interviewer: Enter total number of siblings \_\_\_\_\_ (If number of siblings=0, FTX2)



*Note: a response followed by an alphanumeric in brackets: (F000) indicates that if this response is given, the interviewer should proceed to the question described by the alphanumeric. Interviewers should complete each page from top to bottom before asking the next set of questions in the numeric sequence.*

*Interviewers please complete each page from top to bottom before asking the next set of questions in the numeric sequence. For example, complete name column first then go back to first sibling and ask questions across a row. In order to be consistent, it is important that each question be asked and each response be recorded in a similar manner. Therefore, all interviewers must follow the same technique.*

	What are the first names of your brothers or sisters?	What is (names) sex?	Is (name) still living?	How old is (name) ?	How old was (name) when (he/she) died?
1	F026 oldest _____ name 98 <input type="checkbox"/> DK (F027) 99 <input type="checkbox"/> R	F027 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F028 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F030) 98 <input type="checkbox"/> DK (F031)	F029 _____ enter age 98 <input type="checkbox"/> DK (F031)	F030 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F031)
2	F040 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F041)	F041 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F042 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F044) 98 <input type="checkbox"/> DK (F045)	F043 _____ enter age 98 <input type="checkbox"/> DK (F045)	F044 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F045)
3	F054 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F055)	F055 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F056 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F058) 98 <input type="checkbox"/> DK (F059)	F057 _____ enter age 98 <input type="checkbox"/> DK (F059)	F058 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F059)
4	F068 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F069)	F069 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F070 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F072) 98 <input type="checkbox"/> DK (F073)	F071 _____ enter age 98 <input type="checkbox"/> DK (F073)	F072 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F073)
5	F082 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F083)	F083 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F084 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F086) 98 <input type="checkbox"/> DK (F087)	F085 _____ enter age 98 <input type="checkbox"/> DK (F087)	F086 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F087)
6	F096 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F097)	F097 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F098 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F100) 98 <input type="checkbox"/> DK (F101)	F099 _____ enter age 98 <input type="checkbox"/> DK (F101)	F100 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F101)
7	F110 next _____ name 00 <input type="checkbox"/> None [nxt sec] 98 <input type="checkbox"/> DK (F111)	F111 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F112 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F114) 98 <input type="checkbox"/> DK (F115)	F113 _____ enter age 98 <input type="checkbox"/> DK (F115)	F114 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F115)

*Interviewer: write the total number of siblings here: \_\_\_\_\_.*

*Write in sibling's first names on following pages now.*

*[nxt sec] = medical history questions of children*

**Cancer Types**

- |                       |  |
|-----------------------|--|
| 1 Skin (not melanoma) | 12 Melanoma  |
| 2 Lung                | 13 Oral cavity   |
| 3 Breast              | 14 Ovary   |
| 4 Colon               | 15 Pancreas  |
| 5 Prostate            | 16 Rectum  |
| 6 Bladder             | 17 Stomach   |
| 7 Brain               | 18 Uterine (corpus uteri)                                    |
| 8 Cervix              | 19 Other cancer (specify)                                    |
| 9 Kidney              | 20 Cancer of female reproductive organs:<br>site unknown     |
| 10 Leukemia           | 21 Cancer of the large bowel (colon/rectum),<br>site unknown |
| 11 Lymphoma           | 22 Relative had cancer: site unknown                         |

	Was (first name) ever diagnosed as having any type of cancer?	What was the first type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
1	<b>F031</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F040) sibling name _____ 98 <input type="checkbox"/> DK (F040)	<b>F032</b> _____ write in cancer name and # (see list above)	<b>F033</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F034)
2	<b>F045</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F054) sibling name _____ 98 <input type="checkbox"/> DK (F054)	<b>F046</b> _____ write in cancer name and # (see list above)	<b>F047</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F048)
3	<b>F059</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F068) sibling name _____ 98 <input type="checkbox"/> DK (F068)	<b>F060</b> _____ write in cancer name and # (see list above)	<b>F061</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F062)
4	<b>F073</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F082) sibling name _____ 98 <input type="checkbox"/> DK (F082)	<b>F074</b> _____ write in cancer name and # (see list above)	<b>F075</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F076)
5	<b>F087</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F096) sibling name _____ 98 <input type="checkbox"/> DK (F096)	<b>F088</b> _____ write in cancer name and # (see list above)	<b>F089</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F090)
6	<b>F101</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F110) sibling name _____ 98 <input type="checkbox"/> DK (F110)	<b>F102</b> _____ write in cancer name and # (see list above)	<b>F103</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F104)
7	<b>F115</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F116</b> _____ write in cancer name and # (see list above)	<b>F117</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F118)

Interviewer: write the total number of siblings here: \_\_\_\_\_.

Cancer Types

- |                        |  |
|------------------------|--|
| 1. Skin (not melanoma) | 12. Melanoma   |
| 2. Lung                | 13. Oral Cavity  |
| 3. Breast              | 14. Ovary  |
| 4. Colon               | 15. Pancreas   |
| 5. Prostate            | 16. Rectum   |
| 6. Bladder             | 17. Stomach  |
| 7. Brain               | 18. Uterine (corpus uteri)                                 |
| 8. Cervix              | 19. Other cancer (specify)                                 |
| 9. Kidney              | 20. Cancer of female reproductive organs; site unknown     |
| 10. Leukemia           | 21. Cancer of the large bowel (colon/rectum), site unknown |
| 11. Lymphoma           | 22. Relative had cancer; site unknown                      |

	Did (first name) have any other cancer?	What was the second type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
1	<b>F034</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F040) sibling name _____ 98 <input type="checkbox"/> DK (F040)	<b>F035</b> _____ write in cancer name and # (see list above)	<b>F036</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F037)
2	<b>F048</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F054) sibling name _____ 98 <input type="checkbox"/> DK (F054)	<b>F049</b> _____ write in cancer name and # (see list above)	<b>F050</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F051)
3	<b>F062</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F068) sibling name _____ 98 <input type="checkbox"/> DK (F068)	<b>F063</b> _____ write in cancer name and # (see list above)	<b>F064</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F065)
4	<b>F076</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F082) sibling name _____ 98 <input type="checkbox"/> DK (F082)	<b>F077</b> _____ write in cancer name and # (see list above)	<b>F078</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F079)
5	<b>F090</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F096) sibling name _____ 98 <input type="checkbox"/> DK (F096)	<b>F091</b> _____ write in cancer name and # (see list above)	<b>F092</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F093)
6	<b>F104</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F110) sibling name _____ 98 <input type="checkbox"/> DK (F110)	<b>F105</b> _____ write in cancer name and # (see list above)	<b>F106</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F107)
7	<b>F118</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F119</b> _____ write in cancer name and # (see list above)	<b>F120</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F121)

Interviewer: write the total number of siblings here: \_\_\_\_\_.

**Cancer Types**

- |                        |   |
|------------------------|---|
| 1. Skin (not melanoma) | 12. Melanoma  |
| 2. Lung                | 13. Oral Cavity   |
| 3. Breast              | 14. Ovary   |
| 4. Colon               | 15. Pancreas  |
| 5. Prostate            | 16. Rectum  |
| 6. Bladder             | 17. Stomach   |
| 7. Brain               | 18. Uterine (corpus uteri)                                    |
| 8. Cervix              | 19. Other cancer (specify)                                    |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown     |
| 10. Leukemia           | 21. Cancer of the large bowel (colon/rectum),<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer; site unknown                         |

	Did (first name) have any other cancer?	What was the third type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
1	<b>F037</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F040) sibling name 98 <input type="checkbox"/> DK (F040)	<b>F038</b> _____ write in cancer name and # (see list above)	<b>F039</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F040)
2	<b>F051</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F054) sibling name 98 <input type="checkbox"/> DK (F054)	<b>F052</b> _____ write in cancer name and # (see list above)	<b>F053</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F054)
3	<b>F065</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F068) sibling name 98 <input type="checkbox"/> DK (F068)	<b>F066</b> _____ write in cancer name and # (see list above)	<b>F067</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F068)
4	<b>F079</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F082) sibling name 98 <input type="checkbox"/> DK (F082)	<b>F080</b> _____ write in cancer name and # (see list above)	<b>F081</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F082)
5	<b>F093</b> 1 <input type="checkbox"/> Yes _____ 3 <input type="checkbox"/> No (F096) sibling name 98 <input type="checkbox"/> DK (F096)	<b>F094</b> _____ write in cancer name and # (see list above)	<b>F095</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F096)
6	<b>F107</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F110) sibling name 98 <input type="checkbox"/> DK (F110)	<b>F108</b> _____ write in cancer name and # (see list above)	<b>F109</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F110)
7	<b>F121</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F122</b> _____ write in cancer name and # (see list above)	<b>F123</b> _____ enter age 00 <input type="checkbox"/> < 1 year old 98 <input type="checkbox"/> DK (F124)

Interviewers: write the total number of siblings here: \_\_\_\_\_.

	What is the first name of your (next) brother or sister?	What is (name) sex?	Is (name) still living?	How old is (name)?	How old was (name) when (he/she) died?
8	<b>F124</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F125)	<b>F125</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F126</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F128) 98 <input type="checkbox"/> DK (F129)	<b>F127</b> _____ enter age 98 <input type="checkbox"/> DK (F129)	<b>F128</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F129)
9	<b>F138</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F139)	<b>F139</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F140</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F142) 98 <input type="checkbox"/> DK (F143)	<b>F141</b> _____ enter age 98 <input type="checkbox"/> DK (F143)	<b>F142</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F143)
10	<b>F152</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (f153)	<b>F153</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F154</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F156) 98 <input type="checkbox"/> DK (F157)	<b>F155</b> _____ enter age 98 <input type="checkbox"/> DK (F157)	<b>F156</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F157)
11	<b>F166</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F167)	<b>F167</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F168</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F170) 98 <input type="checkbox"/> DK (F171)	<b>F169</b> _____ enter age 98 <input type="checkbox"/> DK (F171)	<b>F170</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F171)
12	<b>F180</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F181)	<b>F181</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F182</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F184) 98 <input type="checkbox"/> DK (F185)	<b>F183</b> _____ enter age 98 <input type="checkbox"/> DK (F185)	<b>F184</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F185)
13	<b>F194</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F195)	<b>F195</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F196</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F198) 98 <input type="checkbox"/> DK (F199)	<b>F197</b> _____ enter age 98 <input type="checkbox"/> DK (F199)	<b>F198</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F199)
14	<b>F208</b> _____ name 00 <input type="checkbox"/> None [NxtSec] 98 <input type="checkbox"/> DK (F209)	<b>F209</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F210</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F212) 98 <input type="checkbox"/> DK (F213)	<b>F211</b> _____ enter age 98 <input type="checkbox"/> DK (F213)	<b>F212</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F213)

Interviewer: write the total number of siblings here: \_\_\_\_\_.

**Cancer Types**

- |                        |   |
|------------------------|---|
| 1. Skin (not melanoma) | 12. Melanoma  |
| 2. Lung                | 13. Oral cavity   |
| 3. Breast              | 14. Ovary   |
| 4. Colon               | 15. Pancreas  |
| 5. Prostate            | 16. Rectum  |
| 6. Bladder             | 17. Stomach   |
| 7. Brain               | 18. Uterine (corpus uteri)                                    |
| 8. Cervix              | 19. Other cancer (specify)                                    |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown     |
| 10. Leukemia           | 21. Cancer of the large bowel (colon/rectum),<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer, site unknown                         |

	Was (first name) ever diagnosed as having any type of cancer?	What was the first type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
8	<b>F129</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F138) sibling name _____ 98 <input type="checkbox"/> DK (F138)	<b>F130</b> _____ write in cancer name and # (see list above)	<b>F131</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F132)
9	<b>F143</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F152) sibling name _____ 98 <input type="checkbox"/> DK (F152)	<b>F144</b> _____ write in cancer name and # (see list above)	<b>F145</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F146)
10	<b>F157</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F166) sibling name _____ 98 <input type="checkbox"/> DK (F166)	<b>F158</b> _____ write in cancer name and # (see list above)	<b>F159</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F160)
11	<b>F171</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F180) sibling name _____ 98 <input type="checkbox"/> DK (F180)	<b>F172</b> _____ write in cancer name and # (see list above)	<b>F173</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F174)
12	<b>F185</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F194) sibling name _____ 98 <input type="checkbox"/> DK (F194)	<b>F186</b> _____ write in cancer name and # (see list above)	<b>F187</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F188)
13	<b>F199</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F208) sibling name _____ 98 <input type="checkbox"/> DK (F208)	<b>F200</b> _____ write in cancer name and # (see list above)	<b>F201</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F202)
14	<b>F213</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F214</b> _____ write in cancer name and # (see list above)	<b>F215</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F216)

Interviewer: write the total number of siblings here: \_\_\_\_\_.

**Cancer Types**

- |                        |   |
|------------------------|---|
| 1. Skin (not melanoma) | 12. Melanoma  |
| 2. Lung                | 13. Oral cavity   |
| 3. Breast              | 14. Ovary   |
| 4. Colon               | 15. Pancreas  |
| 5. Prostate            | 16. Rectum  |
| 6. Bladder             | 17. Stomach   |
| 7. Brain               | 18. Uterine (corpus uteri)                                  |
| 8. Cervix              | 19. Other cancer (specify)                                  |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown   |
| 10. Leukemia           | 21. Cancer of the large bowel(colon/rectum)<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer site; unknown                       |

	Did (first name) have any other cancer?	What was the second type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
8	<b>F132</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F138) sibling name _____ 98 <input type="checkbox"/> DK (F138)	<b>F133</b> _____ write in cancer name and # (see list above)	<b>F134</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F135)
9	<b>F146</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F152) sibling name _____ 98 <input type="checkbox"/> DK (F152)	<b>F147</b> _____ write in cancer name and # (see list above)	<b>F148</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F149)
10	<b>F160</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F166) sibling name _____ 98 <input type="checkbox"/> DK (F166)	<b>F161</b> _____ write in cancer name and # (see list above)	<b>F162</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F163)
11	<b>F174</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F180) sibling name _____ 98 <input type="checkbox"/> DK (F180)	<b>F175</b> _____ write in cancer name and # (see list above)	<b>F176</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F177)
12	<b>F188</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F194) sibling name _____ 98 <input type="checkbox"/> DK (F194)	<b>F189</b> _____ write in cancer name and # (see list above)	<b>F190</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F191)
13	<b>F202</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F208) sibling name _____ 98 <input type="checkbox"/> DK (F208)	<b>F203</b> _____ write in cancer name and # (see list above)	<b>F204</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F205)
14	<b>F216</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F217</b> _____ write in cancer name and # (see list above)	<b>F218</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F219)

**Interviewer: write the total number of siblings here:** \_\_\_\_\_.

**Cancer Types**

- |                        |   |
|------------------------|---|
| 1. Skin (not melanoma) | 12. Melanoma  |
| 2. Lung                | 13. Oral cavity   |
| 3. Breast              | 14. Ovary   |
| 4. Colon               | 15. Pancreas  |
| 5. Prostate            | 16. Rectum  |
| 6. Bladder             | 17. Stomach   |
| 7. Brain               | 18. Uterine (corpus uteri)                                  |
| 8. Cervix              | 19. Other cancer (specify)                                  |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown   |
| 10. Leukemia           | 21. Cancer of the large bowel(colon/rectum)<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer; site unknown                       |

	Did (first name) have any other cancer?	What was the third type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
8	<b>F135</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F138) sibling name _____ 98 <input type="checkbox"/> DK (F138)	<b>F136</b> _____ write in cancer name and # (see list above)	<b>F137</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F138)
9	<b>F149</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F152) sibling name _____ 98 <input type="checkbox"/> DK (F152)	<b>F150</b> _____ write in cancer name and # (see list above)	<b>F151</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F152)
10	<b>F163</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F166) sibling name _____ 98 <input type="checkbox"/> DK (F166)	<b>F164</b> _____ write in cancer name and # (see list above)	<b>F165</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F166)
11	<b>F177</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F180) sibling name _____ 98 <input type="checkbox"/> DK (F180)	<b>F178</b> _____ write in cancer name and # (see list above)	<b>F179</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F180)
12	<b>F191</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F194) sibling name _____ 98 <input type="checkbox"/> DK (F194)	<b>F192</b> _____ write in cancer name and # (see list above)	<b>F193</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F194)
13	<b>F205</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F208) sibling name _____ 98 <input type="checkbox"/> DK (F208)	<b>F206</b> _____ write in cancer name and # (see list above)	<b>F207</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F208)
14	<b>F219</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] sibling name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F220</b> _____ write in cancer name and # (see list above)	<b>F221</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F222)

Interviewer: write the total number of siblings here: \_\_\_\_\_.



I would like to ask you the same questions about your children. Again, include those who are living or deceased, but do not include adopted, foster, or step children.

How many children do you have? Again, please include any who may have died.

F222

# Natural Children

00 ☐ None98 ☐ DK99 ☐ R

(Go to next section)

Interviewers please list all children's names in first column then go back to first child and complete information across a row. Enter first name only for each child.

	What is the first name of your (oldest/next) Child?	What is (name's) sex?	Is (name) still living?	How old is (name) ?	How old was (name) when (he/she) died?
1	F223 oldest _____ name 98 <input type="checkbox"/> DK (F224) 99 <input type="checkbox"/> R	F224 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F225 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F227) 98 <input type="checkbox"/> DK (F228)	F226 _____ enter age 98 <input type="checkbox"/> DK (F228)	F227 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F228)
2	F234 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F235)	F235 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F236 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F238) 98 <input type="checkbox"/> DK (F239)	F237 _____ enter age 98 <input type="checkbox"/> DK (F239)	F238 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F239)
3	F245 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F246)	F246 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F247 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F249) 98 <input type="checkbox"/> DK (F250)	F248 _____ enter age 98 <input type="checkbox"/> DK (F250)	F249 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F250)
4	F256 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F257)	F257 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F258 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F260) 98 <input type="checkbox"/> DK (F261)	F259 _____ enter age 98 <input type="checkbox"/> DK (F261)	F260 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F261)
5	F267 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F268)	F268 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F269 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F271) 98 <input type="checkbox"/> DK (F272)	F270 _____ enter age 98 <input type="checkbox"/> DK (F272)	F271 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F272)
6	F278 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F279)	F279 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F280 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F282) 98 <input type="checkbox"/> DK (F283)	F281 _____ enter age 98 <input type="checkbox"/> DK (F283)	F282 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F238)
7	F289 _____ name 00 <input type="checkbox"/> No more children 98 <input type="checkbox"/> DK (F290)	F290 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	F291 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F293) 98 <input type="checkbox"/> DK (F294)	F292 _____ enter age 98 <input type="checkbox"/> DK (F294)	F293 _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F294)

Interviewer: enter total number of children \_\_\_\_\_.

**Cancer Types**

- |                        |  |
|------------------------|--|
| 1. Skin (not melanoma) | 12. Melanoma   |
| 2. Lung                | 13. Oral cavity  |
| 3. Breast              | 14. Ovary  |
| 4. Colon               | 15. Pancreas   |
| 5. Prostate            | 16. Rectum   |
| 6. Bladder             | 17. Stomach  |
| 7. Brain               | 18. Uterine (corpus uteri)                                   |
| 8. Cervix              | 19. Other cancer (specify)                                   |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown    |
| 10. Leukemia           | 21. Cancer of the large bowel(colon/rectum);<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer; site unknown                        |

	Was (first name) ever diagnosed as having any type of cancer?	What was the first type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
1	<b>F228</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F234) child's name _____ 98 <input type="checkbox"/> DK (F234)	<b>F229</b> _____ write in cancer name and # (see list above)	<b>F230</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F231)
2	<b>F239</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F245) child's name _____ 98 <input type="checkbox"/> DK (F245)	<b>F240</b> _____ write in cancer name and # (see list above)	<b>F241</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F242)
3	<b>F250</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F256) child's name _____ 98 <input type="checkbox"/> DK (F256)	<b>F251</b> _____ write in cancer name and # (see list above)	<b>F252</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F253)
4	<b>F261</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F267) child's name _____ 98 <input type="checkbox"/> DK (F267)	<b>F262</b> _____ write in cancer name and # (see list above)	<b>F263</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F264)
5	<b>F272</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F278) child's name _____ 98 <input type="checkbox"/> DK (F278)	<b>F273</b> _____ write in cancer name and # (see list above)	<b>F274</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F275)
6	<b>F283</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F289) child's name _____ 98 <input type="checkbox"/> DK (F289)	<b>F284</b> _____ write in cancer name and # (see list above)	<b>F285</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F286)
7	<b>F294</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [NxtSec] child's name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F295</b> _____ write in cancer name and # (see list above)	<b>F296</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F297)

Interviewer: enter total # of children \_\_\_\_\_.

**Cancer Types**

- |                        |  |
|------------------------|--|
| 1. Skin (not melanoma) | 12. Melanoma   |
| 2. Lung                | 13. Oral cavity  |
| 3. Breast              | 14. Ovary  |
| 4. Colon               | 15. Pancreas   |
| 5. Prostate            | 16. Rectum   |
| 6. Bladder             | 17. Stomach  |
| 7. Brain               | 18. Uterine (corpus uteri)                                   |
| 8. Cervix              | 19. Other cancer (specify)                                   |
| 9. Kidney              | 20. Cancer of female reproductive organs;<br>site unknown    |
| 10. Leukemia           | 21. Cancer of the large bowel(colon/rectum);<br>site unknown |
| 11. Lymphoma           | 22. Relative had cancer; site unknown                        |

	Did (first name) have a second cancer?	What was the second type of cancer (NAME) had?	How old was (HE/SHE) when this cancer was diagnosed?
1	<b>F231</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F234) child's name _____ 98 <input type="checkbox"/> DK (F234)	<b>F232</b> _____ write in cancer name and # (see list above)	<b>F233</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F234)
2	<b>F242</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F245) child's name _____ 98 <input type="checkbox"/> DK (F245)	<b>F243</b> _____ write in cancer name and # (see list above)	<b>F244</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F245)
3	<b>F253</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F256) child's name _____ 98 <input type="checkbox"/> DK (F256)	<b>F254</b> _____ write in cancer name and # (see list above)	<b>F255</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F256)
4	<b>F264</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F267) child's name _____ 98 <input type="checkbox"/> DK (F267)	<b>F265</b> _____ write in cancer name and # (see list above)	<b>F266</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F267)
5	<b>F275</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F278) child's name _____ 98 <input type="checkbox"/> DK (F278)	<b>F276</b> _____ write in cancer name and # (see list above)	<b>F277</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F278)
6	<b>F286</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No (F289) child's name _____ 98 <input type="checkbox"/> DK (F289)	<b>F287</b> _____ write in cancer name and # (see list above)	<b>F288</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F289)
7	<b>F297</b> 1 <input type="checkbox"/> Yes _____ 2 <input type="checkbox"/> No [Nxt Sec] child's name _____ 98 <input type="checkbox"/> DK [Nxt Sec]	<b>F298</b> _____ write in cancer name and # (see list above)	<b>F299</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F300)

Interviewer: enter total number of children \_\_\_\_\_.

	What is the first name of your (oldest/next) Child?	What is (names) sex?	Is (name) still living?	How old is (name) ?	How old was (name) when (he/she) died?
8	<b>F300</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F301)	<b>F301</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F302</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F304) 98 <input type="checkbox"/> DK (F305)	<b>F303</b> _____ enter age 98 <input type="checkbox"/> DK (F305)	<b>F304</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F305)
9	<b>F311</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F312)	<b>F312</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F313</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F315) 98 <input type="checkbox"/> DK (F316)	<b>F314</b> _____ enter age 98 <input type="checkbox"/> DK (F316)	<b>F315</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F316)
10	<b>F322</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F323)	<b>F323</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F324</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F326) 98 <input type="checkbox"/> DK (F327)	<b>F325</b> _____ enter age 98 <input type="checkbox"/> DK (F327)	<b>F326</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F327)
11	<b>F333</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F334)	<b>F334</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F335</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F337) 98 <input type="checkbox"/> DK (F338)	<b>F336</b> _____ enter age 98 <input type="checkbox"/> DK (F338)	<b>F337</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F338)
12	<b>F344</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F345)	<b>F345</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F346</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F348) 98 <input type="checkbox"/> DK (F349)	<b>F347</b> _____ enter age 98 <input type="checkbox"/> DK (F349)	<b>F348</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F349)
13	<b>F355</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F356)	<b>F356</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F357</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F359) 98 <input type="checkbox"/> DK (F360)	<b>F358</b> _____ enter age 98 <input type="checkbox"/> DK (F360)	<b>F359</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F360)
14	<b>F366</b> _____ name 00 <input type="checkbox"/> None [Nxt Sec] 98 <input type="checkbox"/> DK (F367)	<b>F367</b> 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 98 <input type="checkbox"/> DK	<b>F368</b> 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No (F370) 98 <input type="checkbox"/> DK (F371)	<b>F369</b> _____ enter age 98 <input type="checkbox"/> DK (F371)	<b>F370</b> _____ enter age 00 <input type="checkbox"/> <1 year old 98 <input type="checkbox"/> DK (F371)

Interviewer: Enter total number of children \_\_\_\_\_.

# Women's Questionnaire

Let us begin this section of questions by relating them to specific periods of your life. To help you become oriented to that period of time in your life think about where you were living, what your job was at the time, if you were married.

1. What was your weight two years ago? 1-500 \_\_\_\_\_ lbs.  
(code directly to nearest pound) 98 ☐ DK  
99 ☐ R 1 \_\_\_\_\_
2. What was your weight ten years ago? 1-500 \_\_\_\_\_ lbs.  
(code directly to nearest pound) 98 ☐ DK  
99 ☐ R 2 \_\_\_\_\_
3. What was your weight twenty years ago? 1-500 \_\_\_\_\_ lbs.  
(code directly to nearest pound) 98 ☐ DK  
99 ☐ R 3 \_\_\_\_\_
4. What was your weight at age 16? 1-500 \_\_\_\_\_ lbs.  
(code directly to nearest pound) 98 ☐ DK  
99 ☐ R 4 \_\_\_\_\_
5. What was your height two years ago? \_\_\_\_\_ ft. \_\_\_\_\_ in. 5 \_\_\_\_\_
6. Approximately how old were you when you had your first menstrual period? 1-96 \_\_\_\_\_ y.o.  
98 ☐ DK  
99 ☐ R 6 \_\_\_\_\_
7. At what age did you have your last period? 1-96 \_\_\_\_\_ y.o.  
2 ☐ still has  
98 ☐ DK  
99 ☐ R  
→ If "still has periods", go to Q9 7 \_\_\_\_\_
8. Why did your periods stop? 8 \_\_\_\_\_
  - 1 ☐ Menopause
  - 2 ☐ Hysterectomy
  - 3 ☐ Chemotherapy, X-Ray, Radiation
  - 4 ☐ Pills
  - 5 ☐ Other
  - 98 ☐ DK
  - 99 ☐ R

→ If "Other", specify:

\_\_\_\_\_

\_\_\_\_\_

9. Have you ever had an ovary removed? Yes (bilat)\*

No

Yes, (unilat)\*

DK

R

☐ 1

☐ 2

☐ 3

☐ 98

☐ 99

9

→ If "No", go to Q11

\* bilat=bilateral, both sides; unilat=unilateral, one side

10. What age were you when your ovary (ies)?  
was (were) removed?

1-97 \_\_\_\_\_ y.o.

DK ☐ 98

R ☐ 99

10

11. Did you ever have any problems with your  
breasts, such as lumps, cysts, and/or fibrocystic disease?

Yes ☐ 1

No ☐ 2

DK ☐ 98

R ☐ 99

11

→ If "No", go to Q17

12. Was this diagnosed by a physician?

Yes ☐ 1

No ☐ 2

DK ☐ 98

R ☐ 99

12

→ If "No", go to Q17

13. Did the doctor do a biopsy of your breast  
when you had this problem?

Yes ☐ 1

No ☐ 2

DK ☐ 98

R ☐ 99

13

→ If "No", go to Q 17

14. Please tell me the name and address of the hospital/clinic where this was done and the year in  
which it was done. (DK=98, R=99)

\_\_\_\_\_  
Hospital/Clinic name

\_\_\_\_\_  
City/State

\_\_\_\_\_  
Year biopsy performed

14

15

16

This section of the interview concerns your pregnancy history.

17. Have you ever been pregnant?

Yes ☐ 1

No ☐ 2

DK ☐ 98

R ☐ 99

17

→ If "No", go to Q19----

18. Please answer the following questions about each of your pregnancies including those that did not result in a live birth.

A	B	C	D	E	F	G	H
What age did you become pregnant?	What was the outcome?	How many wks did you carry this baby?	What was the baby's sex?	Did you breast feed this baby?	For how many months?	Why did you stop nursing?	Did you take a shot or pill to dry up your milk?
98=DK 99=R	1=live birth 2=stillbirth 3=miscarriage 4=abortion 5=tubal pregnancy 8=DK 9=R (if "3,4, or 5, go to next pregnancy)	98=DK 99=R	1=male 2=female 98=DK 99=R  (stillborn go to H)	1=No 2=Yes 8=DK 9=R  (if No go to H)	98=DK 99=R	1=normal weaning 2=cracked nipples 3=painful 4=little milk 5=other med 6=other nonmedical 98=DK 99=R	1=Yes shot 2=No 3=Yes pills 4=Yes, DK shot or pill 98=DK 99=R
AGE	OUTCOME	WEEKS	SEX	NURSED	Months	STOPPED	DRY UP?
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

**"Now I have some questions about the use of hormone medications. The first questions are about hormone replacement therapy, hormones that are taken around the time of menopause. This does not include hormones used for birth control."**

**Hormone Replacement Therapy (HRT)**

***Interviewer: show card F***

19. Did you ever take any type of estrogen, such as Premarin, progesterone, such a Provera, testosterone, and other hormone medication (Show Card):
- 1) menopause-related symptoms (hot flashes, sweating, vaginal dryness, bladder problems)
  - 2) depression, anxiety, emotional distress
  - 3) replacement therapy after hysterectomy or oophorectomy (ovaries removed)
  - 4) osteoporosis (bone loss), to prevent osteoporosis or bone loss (or thinning)
  - 5) cardiovascular disease, to prevent cardiovascular disease
  - 6) irregular menstrual periods, to regulate periods
  - 7) treatment of disease (specify \_\_\_\_\_)
  - 8) prevention of disease (specify \_\_\_\_\_)
  - 9) anti-estrogen effect in a woman using menopausal estrogens
  - 98) other ( specify \_\_\_\_\_ )

These hormones could include pills, vaginal creams or suppositories, injections, or skin patches.

Yes ☐ 1

No ☐ 2

→ If "No", go to Q24

20. Were these hormones (estrogen, progesterone, or testosterone) in the form of a:

- |                                 |                                |                               |
|---------------------------------|--------------------------------|-------------------------------|
| A. Pill                         | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 |
| B. Vaginal Cream or Suppository | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 |
| C. Skin Patch                   | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 |
| D. Shot                         | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 |

21. When you were taking these (hormones), did you take them for **3 straight months** or more?

- |                                 |                                |   |
|---------------------------------|--------------------------------|---|
| A. Pill                         | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 (yes→ Complete 22.1- 22.12) |
| B. Vaginal Cream or Suppository | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 (yes→ Complete 23.1-23.12)  |
| C. Skin Patch                   | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 (yes→ Complete 24.1-24.12)  |
| D. Shot                         | Yes <input type="checkbox"/> 1 | No <input type="checkbox"/> 2 (yes→ Complete 25.1-25.12)  |

**If "No", go to Q24**

**"Now I would like to ask you some details about your use of these hormones. First, see if you can recognize the specific type(s) you used from this chart." [show examples]**



## 22. If Estrogen, Progesterone, or Testosterone Pills Reported

Complete 22.1-22.12 for each episode of use.

22.1-22.2		22.3	22.4-22.5	22.6	22.7
What is the name of the (first/next) pill you took?  Enter complete name and code. Probe for frequency and unit of measure.  [show examples]		Please tell me the reason you used this pill?  [show card]	At what age did you (first/next) start taking this pill?  At what age did you stop taking this pill?  If still taking, record current age.	How many total years and months between (ages in 22.4 and 22.5) did you take this pill?	When you were taking this hormone between (ages in 22.4 and 22.5) did you usually take it every day, or in cycles?
1st Pill	Name: _____  Code: _____ _____ per 1...day #pills 2...week	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every day .....4 Every other day.....5 In Cycles (specify)...7 _____ Other (specify).....8
2nd Pill	Name: _____  Code: _____ _____ per 1...day #pills 2...week	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every day .....4 Every other day.....5 In Cycles (specify)...7 _____ Other (specify).....8
3rd Pill	Name: _____  Code: _____ _____ per 1...day #pills 2...week	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every day .....4 Every other day.....5 In Cycles (specify)...7 _____ Other (specify).....8
4th Pill	Name: _____  Code: _____ _____ per 1...day #pills 2...week	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every day .....4 Every other day.....5 In Cycles (specify)...7 _____ Other (specify).....8

If hormone was estrogen, go to Q22.8. If not, go to 23.1.

## 22.8 While you were taking estrogen pills, did you also take progesterone?

Yes ☐ 1 No ☐ 2 →

Go to next hormone

22.9-22.10

22.11-22.12

What is the name of the progesterone that you took with this estrogen? Enter complete name and code. Probe for frequency and unit of measure. [show examples]	During the (first/next) time when you were taking (estrogen) and (progesterone) in the same month, on which days did you usually take the estrogen and on which days did you usually take the progesterone? Circle first and last dates of each. Then connect first to last with a line. Enter the Start Day and End Day for Estrogen (E) and Progesterone (P) and record total number days on Estrogen (E), Progesterone (P), and Estrogen plus Progesterone (E+P).			
	1 2 3 4 5 6 7	8 9 10 11 12	13 14 15 16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31
Name: _____ Code: _____ _____ per 1...Day #Pills 2...Week	EEEEEEEE PPPPPPP	EEEE E PPPP P	EEEE E PPPP P	EEEEEEEEEEEEEEEE PPPPPPPPPPPPPP
	Start Day E P	Stop Day E P	Total Days E P E+P	When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)
Name: _____ Code: _____ _____ per 1...Day #Pills 2...Week	EEEEEEEE PPPPPPP	EEEE E PPPP P	EEEE E PPPP P	EEEEEEEEEEEEEEEE PPPPPPPPPPPPPP
	Start Day E P	Stop Day E P	Total Days E P E+P	When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)
Name: _____ Code: _____ _____ per 1...Day #Pills 2...Week	EEEEEEEE PPPPPPP	EEEE E PPPP P	EEEE E PPPP P	EEEEEEEEEEEEEEEE PPPPPPPPPPPPPP
	Start Day E P	Stop Day E P	Total Days E P E+P	When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)
Name: _____ Code: _____ _____ per 1...Day #Pills 2...Week	EEEEEEEE PPPPPPP	EEEE E PPPP P	EEEE E PPPP P	EEEEEEEEEEEEEEEE PPPPPPPPPPPPPP
	Start Day E P	Stop Day E P	Total Days E P E+P	When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)
Name: _____ Code: _____ _____ per 1...Day #Pills 2...Week	EEEEEEEE PPPPPPP	EEEE E PPPP P	EEEE E PPPP P	EEEEEEEEEEEEEEEE PPPPPPPPPPPPPP
	Start Day E P	Stop Day E P	Total Days E P E+P	When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)

**23. If Vaginal Cream or Suppository Reported:**

Complete 23.1-23.12

23.1-23.2		23.3	23.4-23.5	23.6	23.6a	23.7
What is the name of the (first/next) vaginal cream or suppository you used?  Enter complete name and code. Probe for frequency and unit of measure.  [show examples]		Please tell me the reason you used this vaginal cream or suppository?  [show card]	At what age did you (first/next) start taking this vaginal cream or suppository? At what age did you stop? If still using, record current age.	How many total years and months between (ages in 23.4 & 23.5) did you use this cream or suppository?	If using cream, how many applicator-fulls did you use each time	When you were taking this hormone between (ages in 23.4 and 23.5) did you usually take it every week, or in cycles?
1st Crm/ Supp	Name: _____  Code: _____ _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of _____  and _____ Months #of _____	.25.....1 .50.....2 1.0.....3 1.5.....4 2 or more..5 Unknown..9	Every week.....6 In Cycles(specify)...7 _____ Other (specify).....8
2nd Crm/ Supp	Name: _____  Code: _____ _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of _____  and _____ Months #of _____	.25.....1 .50.....2 1.0.....3 1.5.....4 2 or more..5 Unknown..9	Every week.....6 In Cycles(specify)...7 _____ Other (specify).....8
3rd Crm/ Supp	Name: _____  Code: _____ _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of _____  and _____ Months #of _____	.25.....1 .50.....2 1.0.....3 1.5.....4 2 or more..5 Unknown..9	Every week.....6 In Cycles(specify)...7 _____ Other (specify).....8
4th Crm/ Supp	Name: _____  Code: _____ _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of _____  and _____ Months #of _____	.25.....1 .50.....2 1.0.....3 1.5.....4 2 or more..5 Unknown..9	Every week.....6 In Cycles(specify)...7 _____ Other (specify).....8
5th Crm/ Supp	Name: _____  Code: _____ _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of _____  and _____ Months #of _____	.25.....1 .50.....2 1.0.....3 1.5.....4 2 or more..5 Unknown..9	Every week.....6 In Cycles(specify)...7 _____ Other (specify).....8

If hormone was estrogen, go to Q23.8. If not, go to 24.

### 23.8 While you were using estrogen (cream/suppository), did you also take progesterone?

Yes ☐ 1 No ☐ 2 → Go to next hormone

23.9-23.10

23.11-23.12

What is the name of the progesterone that you took with this estrogen? Enter complete name and code. Probe for frequency and unit of measure. [show examples]	During the (first/next) time when you were taking (estrogen) and (progesterone) in the same month, on which days did you usually take the estrogen and on which days did you usually take the progesterone? Circle first and last dates of each. Then connect first to last with a line. Enter the Start Day and End Day for Estrogen (E) and Progesterone (P) and record total number days on Estrogen (E), Progesterone (P), and Estrogen plus Progesterone (E+P).																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Name: _____  Code: _____  _____ per 1...Day #Pills 2... Week	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P				E E E E E E P P P P P P				E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P															
	Start Day							Stop Day				Total Days				When you were taking this progesterone between (ages in 23.4 and 23.5), how often did you take it?															
	E P							E P				E P				9...Every month      11...Every 3 <sup>rd</sup> month 10...Every other month      12...Every 4 <sup>th</sup> month 8...Other (Specify)															
												E+P																			
Name: _____  Code: _____  _____ per 1...Day #Pills 2... Week	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P				E E E E E E P P P P P P				E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P															
	Start Day							Stop Day				Total Days				When you were taking this progesterone between (ages in 23.4 and 23.5), how often did you take it?															
	E P							E P				E P				9...Every month      11...Every 3 <sup>rd</sup> month 10...Every other month      12...Every 4 <sup>th</sup> month 8...Other (Specify)															
												E+P																			
Name: _____  Code: _____  _____ per 1...Day #Pills 2... Week	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P				E E E E E E P P P P P P				E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P															
	Start Day							Stop Day				Total Days				When you were taking this progesterone between (ages in 23.4 and 23.5), how often did you take it?															
	E P							E P				E P				9...Every month      11...Every 3 <sup>rd</sup> month 10...Every other month      12...Every 4 <sup>th</sup> month 8...Other (Specify)															
												E+P																			
Name: _____  Code: _____  _____ per 1...Day #Pills 2... Week	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P				E E E E E E P P P P P P				E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P															
	Start Day							Stop Day				Total Days				When you were taking this progesterone between (ages in 23.4 and 23.5), how often did you take it?															
	E P							E P				E P				9...Every month      11...Every 3 <sup>rd</sup> month 10...Every other month      12...Every 4 <sup>th</sup> month 8...Other (Specify)															
												E+P																			
Name: _____  Code: _____  _____ per 1...Day #Pills 2... Week	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P				E E E E E E P P P P P P				E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P															
	Start Day							Stop Day				Total Days				When you were taking this progesterone between (ages in 23.4 and 23.5), how often did you take it?															
	E P							E P				E P				9...Every month      11...Every 3 <sup>rd</sup> month 10...Every other month      12...Every 4 <sup>th</sup> month 8...Other (Specify)															
												E+P																			

**24. If Hormone Skin Patches Reported:**

Complete 24.1-24.12 for each episode of use.

24.1-24.2		24.3	24.4-24.5	24.6	24.7
What is the name of the (first/next) hormone skin patch you used?  Enter complete name and code. Probe for frequency and unit of measure.  [show examples]		Please tell me the reason you used this skin patch?  [show card]	At what age did you (first/next) start using these patches?  At what age did you stop?  If still taking, record current age.	How many total years and months between (ages in 24.4 and 24.5) did you take these skin patches?	When you were using these skin patches between (ages in 24.4 and 24.5) did you usually take it every week or in cycles?
1st Patch Used	Name: _____  Code: _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 In Cycles (specify)..7 _____ Other (specify).....8 _____
2nd Patch Used	Name: _____  Code: _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 In Cycles (specify)..7 _____ Other (specify).....8 _____
3rd Patch Used	Name: _____  Code: _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 In Cycles (specify)..7 _____ Other (specify).....8 _____
4th Patch Used	Name: _____  Code: _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 In Cycles (specify)..7 _____ Other (specify).....8 _____
5th Patch Used	Name: _____  Code: _____ per 1...day #times 2...week 3...month 4...year	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 In Cycles (specify)..7 _____ Other (specify).....8 _____

If hormone was estrogen, go to Q24.8. If not, go to 25.

**24.8 While you were using estrogen skin patches, did you also take progesterone?**Yes ☐ 1 No ☐ 2 →

Go to next hormone

24.9-24.10

24.11-24.12

What is the name of the progesterone that you took with this estrogen? Enter complete name and code. Probe for frequency and unit of measure. [show examples]	During the (first/next) time when you were taking (estrogen) and (progesterone) in the same month, on which days did you usually take the estrogen and on which days did you usually take the progesterone? Circle first and last dates of each. Then connect first to last with a line. Enter the Start Day and End Day for Estrogen (E) and Progesterone (P) and record total number days on Estrogen (E), Progesterone (P), and Estrogen plus Progesterone (E+P).																														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Name: _____	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Code: _____	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
_____ per 1...Day #Pills 2...Week	Start Day E P							Stop Day E P					Total Days E P E+P					When you were taking this progesterone between (ages in 24.4 and 24.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)													
Name: _____	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Code: _____	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
_____ per 1...Day #Pills 2...Week	Start Day E P							Stop Day E P					Total Days E P E+P					When you were taking this progesterone between (ages in 24.4 and 24.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)													
Name: _____	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Code: _____	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
_____ per 1...Day #Pills 2...Week	Start Day E P							Stop Day E P					Total Days E P E+P					When you were taking this progesterone between (ages in 22.4 and 22.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)													
Name: _____	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Code: _____	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
_____ per 1...Day #Pills 2...Week	Start Day E P							Stop Day E P					Total Days E P E+P					When you were taking this progesterone between (ages in 24.4 and 24.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)													
Name: _____	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Code: _____	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
_____ per 1...Day #Pills 2...Week	Start Day E P							Stop Day E P					Total Days E P E+P					When you were taking this progesterone between (ages in 24.4 and 24.5), how often did you take it? 9...Every month 11...Every 3 <sup>rd</sup> month 10...Every other month 12...Every 4 <sup>th</sup> month 8...Other (Specify)													

**25. If Estrogen, Progesterone, or Testosterone Shots Reported:**

Complete 25.1-25.12

25.1-25.2		25.3	25.4-25.5	25.6	25.7
What is the name of the (first/next) hormone shot you received?  Enter complete name and code. Probe for frequency and unit of measure.  [show examples]		Please tell me the reason you received this shot?  [show card]	At what age did you (first/next) start receiving this hormone shot?  At what age did you stop?  If still taking, record current age.	How many total years and months between (ages in 25.4 and 25.5) did you receive these hormone shots?	When you were receiving these hormone shots between (ages in 25.4 and 25.5) did you receive them every month or in cycles?
1st Shot	Name: _____  Code: _____ per Week...2 #Times Month...3 Year...4	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 Every month.....7 In Cycles (specify)...9  Other (specify).....8
2nd Shot	Name: _____  Code: _____ per Week...2 #Times Month...3 Year...4	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 Every month.....7 In Cycles (specify)...9  Other (specify).....8
3rd Shot	Name: _____  Code: _____ per Week...2 #Times Month...3 Year...4	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 Every month.....7 In Cycles (specify)...9  Other (specify).....8
4th Shot	Name: _____  Code: _____ per Week...2 #Times Month...3 Year...4	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 Every month.....7 In Cycles (specify)...9  Other (specify).....8
5th Shot	Name: _____  Code: _____ per Week...2 #Times Month...3 Year...4	(specify reason) _____ _____ code: _____	_____ Age start  _____ Age stop	_____ Years #of and _____ Months #of	Every week.....6 Every month.....7 In Cycles (specify)...9  Other (specify).....8

**If hormone was estrogen, go to Q25.8. If not, go to next hormone.**

**25.8 While you were taking estrogen shots, did you also take progesterone?**Yes ☐ 1 No ☐ 2 —————→ Go to next hormone

25.9-25.10

25.11-25.12

What is the name of the progesterone that you took with this estrogen shot? Enter complete name and code. Probe for frequency and unit of measure. [show examples]	During the (first/next) time when you were taking (estrogen) and (progesterone) in the same month, on which days did you usually take the estrogen and on which days did you usually take the progesterone? Circle first and last dates of each. Then connect first to last with a line. Enter the Start Day and End Day for Estrogen (E) and Progesterone (P) and record total number days on Estrogen (E), Progesterone (P), and Estrogen plus Progesterone (E+P).																														
	1 2 3 4 5 6 7							8 9 10 11 12					13 14 15 16 17					18 19 20 21 22 23 24 25 26 27 28 29 30 31													
Name: _____	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P					E E E E E E P P P P P P					E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P													
Code: _____	Start Day							Stop Day					Total Days					When you were taking this progesterone between (ages in 25.4 and 25.5), how often did you take it?													
_____ per 1...Day #Pills 2...Week	<u>  </u> E <u>  </u> P							<u>  </u> E <u>  </u> P					<u>  </u> E <u>  </u> P					9...Every month                      11...Every 3 <sup>rd</sup> month 10...Every other month          12...Every 4 <sup>th</sup> month 8...Other (Specify)													
													E+P																		
Name: _____	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P					E E E E E E P P P P P P					E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P													
Code: _____	Start Day							Stop Day					Total Days					When you were taking this progesterone between (ages in 25.4 and 25.5), how often did you take it?													
_____ per 1...Day #Pills 2...Week	<u>  </u> E <u>  </u> P							<u>  </u> E <u>  </u> P					<u>  </u> E <u>  </u> P					9...Every month                      11...Every 3 <sup>rd</sup> month 10...Every other month          12...Every 4 <sup>th</sup> month 8...Other (Specify)													
													E+P																		
Name: _____	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P					E E E E E E P P P P P P					E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P													
Code: _____	Start Day							Stop Day					Total Days					When you were taking this progesterone between (ages in 25.4 and 25.5), how often did you take it?													
_____ per 1...Day #Pills 2...Week	<u>  </u> E <u>  </u> P							<u>  </u> E <u>  </u> P					<u>  </u> E <u>  </u> P					9...Every month                      11...Every 3 <sup>rd</sup> month 10...Every other month          12...Every 4 <sup>th</sup> month 8...Other (Specify)													
													E+P																		
Name: _____	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P					E E E E E E P P P P P P					E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P													
Code: _____	Start Day							Stop Day					Total Days					When you were taking this progesterone between (ages in 25.4 and 25.5), how often did you take it?													
_____ per 1...Day #Pills 2...Week	<u>  </u> E <u>  </u> P							<u>  </u> E <u>  </u> P					<u>  </u> E <u>  </u> P					9...Every month                      11...Every 3 <sup>rd</sup> month 10...Every other month          12...Every 4 <sup>th</sup> month 8...Other (Specify)													
													E+P																		
Name: _____	E E E E E E E E P P P P P P P P							E E E E E E P P P P P P					E E E E E E P P P P P P					E E E E E E E E E E E E E E E E P P P P P P P P P P P P P P P P													
Code: _____	Start Day							Stop Day					Total Days					When you were taking this progesterone between (ages in 25.4 and 25.5), how often did you take it?													
_____ per 1...Day #Pills 2...Week	<u>  </u> E <u>  </u> P							<u>  </u> E <u>  </u> P					<u>  </u> E <u>  </u> P					9...Every month                      11...Every 3 <sup>rd</sup> month 10...Every other month          12...Every 4 <sup>th</sup> month 8...Other (Specify)													
													E+P																		



Now I have some questions about the use of other types of female hormones.

26. Did you ever take birth control pills (oral contraceptives) for any reason?

YES ☐ 1 NO ☐ 2 (Go to Q27)

↳ 26.1 At what age did you start taking birth control pills? 26.1 \_\_\_\_\_  
\_\_\_\_\_ y.o. 98 ☐ DK 99 ☐ R

26.2 At what age did you stop taking birth control pills? 26.2 \_\_\_\_\_  
\_\_\_\_\_ y.o. 98 ☐ DK 99 ☐ R

26.3 How many total years and months between  
(ages in 24.1 and 24.2) did you take birth control pills? 26.3 \_\_\_\_\_  
\_\_\_\_\_ yrs & \_\_\_\_\_ months (enter in months)

26.4 Did you use birth control pills before your first  
full-term pregnancy? 26.4 \_\_\_\_\_

Yes ☐ 1

No ☐ 2

↳ Never pregnant ☐ 3  
(Go to Q27)

26.5 How many total years and months did you use  
birth control pills before your first full-term pregnancy? 26.5 \_\_\_\_\_  
\_\_\_\_\_ yrs & \_\_\_\_\_ months

27. Did you ever take DES (diethylstilbestrol)?

Yes ☐ 1

No ☐ 2 (Go to Q28)

27 \_\_\_\_\_

27.1 At what age did you start taking DES?

1-96 \_\_\_\_\_ yrs.

DK ☐ 98

R ☐ 99

27.1 \_\_\_\_\_

27.2 At what age did you stop taking DES?

1-96 \_\_\_\_\_ y.o.

DK ☐ 98

R ☐ 99

27.2 \_\_\_\_\_

27.3 How many total years and months  
between (ages in 25.1 and 25.2) did you take DES?  
\_\_\_\_\_ yrs & \_\_\_\_\_ months

27.3 \_\_\_\_\_  
(enter in months)

28. Did you ever take shots called depo-provera (DMPA)  
for birth control or for any other reason?

Yes ☐ 1

No ☐ 2 (Go to Q 29)

28 \_\_\_\_\_

28.1- 28.2 When you were taking depo-provera shots,  
how often did you get a shot?

\_\_\_\_\_ every month ☐ 1

#times 3 months ☐ 2

year ☐ 3

28.1 \_\_\_\_\_  
(times)

28.2 \_\_\_\_\_  
(frequency)

28.3 At what age did you start taking  
depo-provera shots?

1-96 \_\_\_\_\_ y.o.

DK ☐ 98

R ☐ 99

28.3 \_\_\_\_\_

28.4 At what age did you stop taking depo-provera shots?

1-96 \_\_\_\_\_ y.o.

DK ☐ 98

R ☐ 99

28.4 \_\_\_\_\_

28.5 How many total years and months between  
(ages in 26.2 and 26.3) did you take  
depo-provera shots? \_\_\_\_\_ yrs & \_\_\_\_\_ months

28.5 \_\_\_\_\_

29. Have you taken any other female hormone  
medications that we have not discussed?

Yes ☐ 1

No ☐ 2 (Go to next section)

29 \_\_\_\_\_

29.1 What was the name of the hormone? \_\_\_\_\_

29.2 What was the reason you took the hormone? \_\_\_\_\_

29.3 Was this hormone in the form of a:

A. Pill

B. Vaginal Cream or Suppository

C. Skin Patch

D. Shot

☐ A

☐ B

☐ C

☐ D

29.3 \_\_\_\_\_

(Go to Questions 6-9 if the hormone was used for reasons listed in Q17)

That completes this interview on the use of female hormone medications. Thank you very  
much for your cooperation.

## BODY MEASUREMENTS

1. WEIGHT \_\_\_\_\_ lbs.

BM1 \_\_\_\_\_

convert to kilograms after interview is complete

\_\_\_\_\_ lbs. X .4536 = \_\_\_\_\_ kg  
XBM2 \_\_\_\_\_  
X2. HEIGHT \_\_\_\_\_ ft \_\_\_\_\_ in =  
BBM3 \_\_\_\_\_  
C

convert to meters and calculate BMI after interview is complete

12x ft \_\_\_\_\_ + in \_\_\_\_\_ = Total inches \_\_\_\_\_  
A B C  
\_\_\_\_\_ X .0254 = \_\_\_\_\_ (height in meters)  
C DBM4 \_\_\_\_\_  
D3. WAIST (measured at narrowest point) \_\_\_\_\_ in  
BM5

BM5 \_\_\_\_\_

4. HIP (measured at widest point) \_\_\_\_\_ in  
BM6

BM6 \_\_\_\_\_

calculate ratio after interview is complete

5. Waist-to-Hip Ratio \_\_\_\_\_ / \_\_\_\_\_ = \_\_\_\_\_  
(waist) (hip) BM7

BM7 \_\_\_\_\_

## LIFESTYLE

These final questions are for statistical purposes only.

What was the total number of persons  
in your household last year, including yourself?

H032

1-25 \_\_\_\_\_ enter number of persons

98 ☐ DK

99 ☐ R

If we need to contact you in the future,  
it is helpful to know the name of an  
individual outside your household who  
will always know your whereabouts.  
What is the name, address, and phone  
number of a close friend or relative  
who does not live with you?

HTX5

Yes ☐ 1

98 ☐ DK [go to H041]

99 ☐ R [go to H041]

**THIS SECTION ENTER FULL TEXT**

Name: \_\_\_\_\_

*Interviewer: enter first name first*

Street : \_\_\_\_\_

Apt. # \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zipcode \_\_\_\_\_

Telephone: (\_\_\_\_) - \_\_\_\_ - \_\_\_\_  
area code

---

What is [NAME]'s relationship to you?

- |  |  |
|--|--|
| 1 <input type="checkbox"/> mother        | 8 <input type="checkbox"/> step son        |
| 2 <input type="checkbox"/> father        | 9 <input type="checkbox"/> daughter-in-    |
| 3 <input type="checkbox"/> son           | law  |
| 4 <input type="checkbox"/> daughter      | 10 <input type="checkbox"/> son-in-law     |
| 5 <input type="checkbox"/> brother       | 11 <input type="checkbox"/> friend         |
| 6 <input type="checkbox"/> sister        | 0 <input type="checkbox"/> other (specify) |
| 7 <input type="checkbox"/> step daughter | _____                                      |
| 98 <input type="checkbox"/> DK           |  |
| 99 <input type="checkbox"/> R            |  |

H037

 \_\_\_\_\_

---

Do you currently have a valid driver's license or I.D. card?

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

H038

 \_\_\_\_\_

*Interviewer: if respondent is < 65, THNX*

---

Are you enrolled in Medicare?

- 1 ☐ Yes  
2 ☐ No  
98 ☐ DK  
99 ☐ R

H039

 \_\_\_\_\_

---

**This question asks about your household income last year. Please mark the appropriate box on the piece of paper, place it back in the envelope and return it to the interviewer.**

HO40

 \_\_\_\_\_

- Interviewer please hand subject question on piece of paper in envelope.
- Interviewer please obtain from subject when completed.

**Please mark the income category that best describes your total family income last year.**

*Interviewer please complete after interview.*

- 1 ☐ less than 5,000
- 2 ☐ between 5,000 and 10,000
- 3 ☐ between 10,000 and 20,000
- 4 ☐ between 20,000 and 30,000
- 5 ☐ between 30,000 and 40,000
- 6 ☐ between 40,000 and 50,000
- 7 ☐ between 50,000 and 60,000
- 8 ☐ more than 60,000
- 98 ☐ DK
- 99 ☐ R

**That completes the interview.  
You have been very helpful and  
I appreciate your time and cooperation.**

THNX

**Complete this section after you have thanked and left the subject**

\_\_\_\_\_ minutes  
(length of interview)

## INTERVIEW QUALITY

Where was the interview conducted?

I002 \_\_\_\_\_

- 1 ☐ Respondent's Home  
3 ☐ Hospital  
5 ☐ Nursing Home  
6 ☐ Somewhere else, specify \_\_\_\_\_

Excluding yourself and the respondent, how  
many other people were present during the  
interview?

I003 \_\_\_\_\_

0-10 \_\_\_\_\_ Enter number

→ If I003 equals 0, go to I013.

Were third parties present in all or part of the  
interview?

I004 \_\_\_\_\_

- 1 ☐ all [go to I013]  
3 ☐ part

Which section: demographics

I005 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present

Section: smoking

I006 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present

**Section: occupational history**

I007 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
- 

**Section: diet history**

I008 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
- 

**Section: medical history**

I009 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
- 

**Section: family history**

I010 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
- 

**Section: reproductive history**

I010A \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
- 

**Section: lifestyle**

I011 \_\_\_\_\_

- 1 ☐ Spouse  
3 ☐ Other (s)  
5 ☐ Spouse and other (s)  
7 ☐ No one present
-



**Quality of information in section: demographics**

I012 \_\_\_\_\_

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory
- 

**Quality of information in section: smoking**

I013 \_\_\_\_\_

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory
- 

**Quality of information in section: occupational history**

I014 \_\_\_\_\_

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory
- 

**Quality of information in section: diet history**

I015 \_\_\_\_\_

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory
- 

**Quality of information in section: medical history**

I016 \_\_\_\_\_

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory
-

**Quality of information in section: family history**

I017

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory

**Quality of information in section: reproductive history**

I018

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory

**Quality of information in section: lifestyle**

I020

- 1 ☐ High Quality  
3 ☐ Generally reliable  
5 ☐ Questionable  
7 ☐ Unsatisfactory

**The overall quality of this interview is:**

I021

- \*1 ☐ High Quality  
\*3 ☐ Generally reliable  
5 ☐ Questionable[go to I024]  
7 ☐ Unsatisfactory [go to I024]

*Interviewer: \* go to I025.*

The main reason for the unsatisfactory or questionable quality of information is because:

I022

- 1 ☐ Did not know enough information regarding the topic
- 2 ☐ Did not want to be more specific
- 3 ☐ Did not understand or speak english well
- 4 ☐ Was bored or uninterested
- 5 ☐ Was upset or depressed
- 7 ☐ Had poor hearing or speech
- 8 ☐ Was confused by frequent interruptions
- 9 ☐ Was emotionally unstable (drunk etc)
- 10 ☐ Was physically ill
- 6 ☐ Other, specify [specify]

Was the respondent's overall cooperation:

I023

- 1 ☐ very good
- 3 ☐ good
- 5 ☐ fair
- 7 ☐ poor

END QUALITY SECTION

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID#

TR

STRAW

= Foods added for Mississippi Delta residents

**Please answer these questions concerning your diet based on the year prior to your date of diagnosis. However, if you are a control participant, answer these questions based on the year prior to this interview.**

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID# TR STRAW

This form asks you questions about your age, size, sex, schooling, things that you eat, drink and breathe, and how you season your food. These things may have to do with how healthy you are. Scientists would like to use this information to understand what makes people sick. This questionnaire will take you about 15 minutes to finish. Please answer all of the questions, either by writing in or circling answers or checking off the boxes that best describe your life. It is OK to guess if you are not sure!

*Please do not mark in the shaded areas.*

1. Today's Date:                                   
Month Day Year

F1					
M	M	D	D	Y	Y

2. What is your birth date?	<u>      </u> / <u>      </u> / <u>      </u> Month Day Year	F2 <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> <u>      </u> M M D D Y Y
3. How old are you today?	<u>      </u> Years	F3 <u>      </u> <u>      </u> <u>      </u>
4. What is your sex?	<u>      </u> 1. Male <u>      </u> 2. Female	F4 <u>      </u>
5. What is your race and ethnic background?  <i>Choose the single answer that best describes you.</i>	<u>      </u> 1. Caucasian, not Hispanic <u>      </u> 2. African-American, not Hispanic <u>      </u> 3. Hispanic/Latino <u>      </u> 4. Native American/Aleut <u>      </u> 5. Asian/Pacific Islander	F5 <u>      </u>
6. Please Indicate the highest grade in school that you finished:	<u>   </u> 1 <u>   </u> 2 <u>   </u> 3 <u>   </u> 4 <u>   </u> 5 <u>   </u> 6 <u>   </u> 7 <u>   </u> 8 <u>   </u> 9 <u>   </u> 10 <u>   </u> 11 <u>   </u> 12 <u>   </u> 13 <u>   </u> 14 <u>   </u> 15 <u>   </u> 16 <u>   </u> 17+	F6 <u>      </u>
7. How tall are you?	<u>      </u> feet <u>      </u> inches	F7 <u>      </u> ins.
8. How much do you weigh?	<u>      </u> pounds	F8 <u>      </u> lbs.
9. Do you smoke cigarettes now?	a. <u>      </u> => Next page 1. Yes    2. No b. <u>      </u> → <u>      </u> cigarettes/day	F9    F10 a. <u>      </u> b. <u>      </u>

<b>10. During the past year, have you taken any vitamins or minerals?</b>	1. Yes, regularly _____ 2. No     => SKIP TO question 16 _____ 3. Some, not regularly _____	F11 _____
<b>11. Describe the pills you take regularly:</b>	A. Multi-Vitamins _____ B. Stress Tabs _____ C. Therapeutic (Theragran) _____ D. Vitamin A _____ IU E. Vitamin C _____ mg F. Vitamin E _____ IU G. Calcium or Dolomite _____ mg	F12 A. _____ B. _____ C. _____ D. _____ E. _____ F. _____ G. _____
	H. Other _____ Ha. Specify type    Hb. # Hc.            IU <sup>1</sup> mg <sup>2</sup>	Ha. _____ Hb. _____ Hc. _____
<b>12. What is (are) the brand (s) of vitamins and minerals you take?</b>	12 a. _____ 12 b. _____ 12 c. _____ 12 d. _____	F13 12 a. _____ 12 b. _____ 12 c. _____ 12 d. _____
<b>13. Of pills you take, please tell us how often you take them:</b>  (#) pills each (day <sup>1</sup> , week <sup>2</sup> )	A. _____ pills each _____ B. _____ pills each _____ C. _____ pills each _____ D. _____ pills each _____ E. _____ pills each _____ F. _____ pills each _____ G. _____ pills each _____ H. _____ pills each _____	F14 A. _____ B. _____ C. _____ D. _____ E. _____ F. _____ G. _____ H. _____

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID#

TR

STRAW

<p><b>14. Please CIRCLE the other dietary supplements you take, like:</b></p> <p>A. Yeast</p> <p>B. Selenium</p> <p>C. Zinc</p> <p>D. Iron</p> <p>E. Beta-carotene</p> <p>F. Cod liver oil</p> <p>G. Other (s)</p> <p>Ga. _____</p> <p>Specify _____</p> <p><i>If you take something not listed here, please write the name in the space provided.</i></p>	<p>F15</p> <p>A. _____</p> <p>B. _____</p> <p>C. _____</p> <p>D. _____</p> <p>E. _____</p> <p>F. _____</p> <p>G. _____</p> <p>Ga. _____</p>
<p><b>15. How many servings of FRUIT (not counting fruit juices) do you eat per day or week?</b></p>	<p>_____ fruit servings each day</p> <p>_____ or week</p> <p>F16</p>
<p><b>16. How many servings of VEGETABLES (not counting salad or potatoes,) do you eat per day or week?</b></p>	<p>_____ vegetable servings each</p> <p>_____ day _____ or week</p> <p>F17</p>

The next section is about your usual eating habits. Think back over the last year. Write down the serving sizes, and number of times you eat the foods on the following pages. **If you have any questions, please ask the research interviewer to help you. The real questions start on the next page. There will be an example there to help you remember the instructions from this page. First, check** the box that describes to you the amount of a food you ate. The examples below are to show you how we describe the amount of foods in this questionnaire.

Example foods	Medium Serving Example:	Your Serving Size:		
		Small	Med	Large
Cantaloupe (in season)	1/4 melon		✓	
Grapefruit	1/2			✓
Sweet potatoes, yams	1/2 cup	✓		
Liver	4 ounces		✓	
Hamburger	1 patty			✓

Next, tell us how often you ate this food. **Write a number** in the box under the times you eat the food. In the example below, the person eats Cantaloupe once a week, when it is in season. She eats grapefruit two times each month, never eats liver, and eats sweet potatoes three times a year. She eats hamburger four times each week. **This table will tell us how often you eat foods listed in the questionnaire:**

	Day	Week	Month	Year	Never
Cantaloupe (in season)	1				
Grapefruit		2			
Sweet Potatoes, yams			3		
Liver					✓
Hamburger		4			

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID# \_\_\_\_\_

TR

STRAW

FRUITS and VEGETABLES	Medium Serving	Check Your serving size.			How many times? Write the number of times, in the box that applies to you.					Please do not mark shaded areas
		S	M	L	Day	Week	Month	Year	Never	
Example: Apples	One apple						2			
<b>Your Responses:</b>										
Apples, applesauce, pears	(1) or 1/2 cup									F18 F19 _____
Cantaloupe (in season)	1/4 medium									F20 F21 _____
Oranges	(1) medium									F22 F23 _____
Orange or grapefruit juice	6 oz. Glass									F24 F25 _____
Grapefruit	1/2 medium									F26 F27 _____
Other fruit juices, fortified fruit drinks	6 oz. Glass									F28 F29 _____
Baked beans, purple, crowder, backe-eyed peas, kidneys, limas, Great northern, butter beans, pintos, red beans	3/4 cup									F30 F31 _____
Tomatoes, tomato juice	(1) or 6 oz.									F32 F33 _____
Broccoli	1/2 cup									F34 F35 _____
Spinach	1/2 cup									F36 F37 _____
Mustard, turnip, or collard greens	1/2 cup									F38 F39 _____
Coleslaw, cabbage, Sauerkraut	1/2 cup									F40 F41 _____
Carrots or vegetable mix with carrots	1/2 cup									F42 F43 _____
Green salad	(1) med bowl									F44 F45 _____
Salad dressing or mayonnaise	2 tablespoons									F46 F47 _____
French fries or fried potatoes	3/4 cup									F48 F49 _____
Sweet potatoes or yams	1/2 cup									F50 F51 _____
Potatoes: boiled, baked, mashed, potato salad	(1) or 1/2 cup									F52 F53 _____
Okra	1/2 cup									
Rice	3/4 cup									F54 F55 _____



# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID# \_\_\_\_\_  
 TR STRAW

MEATS, CASSEROLES, MAIN DISHES	Medium Serving	Check Your serving size.			How many times? Write the number of times, in the box that applies to you.					Please do not mark shaded areas
		S	M	L	Day	Week	Month	Year	Never	
Hamburgers, cheeseburgers or meatloaf	1 medium									F56 F57 _____
Beef steaks or roasts	4 ounces									F58 F59 _____
Beef, chicken, or turkey stew or pot pie w/veggies	(1) cup									F60 F61 _____
Liver, including chicken livers	4 ounces									F62 F63 _____
(ribs?) Pork chops, roast	2 chops or 4 ounces									F64 F65 _____
Fried chicken	2 small or 1 large piece									F66 F67 _____
Chicken or turkey: roasted, stewed or broiled	2 small or 1 large piece									F68 F69 _____
Fried fish including catfish or fish sandwiches	4 oz. Or (1) sandwich									F70 F71 _____
Fish (including catfish): broiled or baked, tuna	4 ounces									F72 F73 _____
Spaghetti, lasagna, other pasta with tomato sauce	1 cup									F74 F75 _____
Hot dogs, Italian or Polish sausages/Kielbasa	2 dogs/(1) sausage									F76 F77 _____
Ham, lunch meats	2 slices									F78 F79 _____
Soups: vegetable, beef, minestrone, tomato	1 medium bowl									F80 F81 _____
BREADS, SALTY SNACKS, SPREADS	Medium Serving	Check Your serving size.			How many times? Write the number of times, in the box that applies to you.					Please do not mark shaded areas
		S	M	L	Day	Week	Month	Year	Never	
White bread, bagels, crackers, flour tortillas	2 slices, (1) bagel, 3 crckr									F82 F83 _____
Dark bread: rye, pumpnickel, wheat	2 slices									F84 F85 _____
Cornbread or muffins, tortillas, or hushpuppies	1 med or 2 hushpuppies									F86 F87 _____
Potato chips, pretzels, corn chips, popcorn	2 handfulls									F88 F89 _____
Peanuts, walnuts, almonds or peanut butter	2 tablespoons									F90 F91 _____
Margerine on bread or rolls	2 pats or (1) tablespoon									F92 F93 _____
Butter on bread or rolls	2 pats or (1) tablespoon									F94 F95 _____

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID# \_\_\_\_\_  
 TR \_\_\_\_\_ STRAW \_\_\_\_\_

BREAKFAST FOODS	Medium Serving	Check Your serving size.			How many times? Write the number of times, in the box that applies to you.					Please do not mark shaded areas
		S	M	L	Day	Week	Month	Year	Never	
High fiber, bran or granola cereals	(1) medium bowl									F96 F97
Fortified cereals (Product 19, Total, Most)	(1) medium bowl									F98 F99
Other cold cereals (Corn Flakes, Rice Krispies)	(1) medium bowl									F100 F101
Cooked Cereals or grits (creamed wheat, oatmeal)	(1) medium bowl									F102 F103
Eggs	2 eggs									F104 F105
Bacon	2 slices									F106 F107
Breakfast Sausages, links or patties	2 patties or links									F108 F109
DAIRY PRODUCTS, BEVERAGES	Medium Serving	Check Your serving size.			How many times? Write in the number of times, in the box that applies to you.					Please do not mark shaded areas
		S	M	L	Day	Week	Month	Year	Never	
Cheeses and cheese spreads	2 slices or 2 ounces									F110 F111
Whole milk and drinks made with, not on cereal	8 ounces									F112 F113
2% milk and drinks made with, not on cereal	8 ounces									F114 F115
1% or non-fat milk and buttermilk, drinks made with, not on cereal	8 ounces									F116 F117
Regular soft drinks, including Koolaid	12 ounces									F118 F119
Beer	12 ounce can or bottle									F120 F121
Wine	(1) medium glass 8 oz?									F122 F123
Liquor: whiskey, rum, vodka, gin, liquers	(1) Shot 2 ounces?									F124 F125
Milk or cream in coffee or tea	(1) tablespoon									F126 F127
Sugar in coffee or tea and on breakfast cereal	2 teaspoons									F128 F129
<b>Please tell us if you eat the following:</b>		Seldom or Never			Sometimes			Often or Always		
Skin on chicken								F130		
Fat on meat								F131		
Pork fat in greens, beans or vegetables								F132		
Salt with your prepared foods								F133		
Pepper with your prepared foods								F134		

# HEALTH HABITS AND DIET QUESTIONNAIRE

Study ID# \_\_\_\_\_  
 TR STRAW

DESSERTS and SWEETS	Medium Serving	Check Your serving size.			How many times? Write the number of times, in the box that applies to you.					<i>Please do not mark shaded areas</i>
		S	M	L	Day	Week	Month	Year	Never	
Ice Cream	1 scoop									F135 F136
Cookies, doughnuts, cake, pastry	(1) piece or 3 cookies									F137 F138
Pie	(1) slice									F139 F140
Chocolate candy	(1) Bar or (1) ounce									F141 F142

# **Breast Study Recruiter Training Manual**

Version 1  
3/3/99

# **Recruiter Training Manual Outline**

- I. Agenda**
- II. Why this study?**
- III. What will you do?**
- IV. How will you do it?**
- V. Resources**

# I.

## Recruiter Training Program

### Agenda

[For training 3 or more recruiters]

9:30-10:00 am	Introductions/Icebreaker
10:00-10:45 am	Why This Study? [Program description/goals/video]
10:45-11:00 am	What Will You Do? [Mechanics of recruitment]
11:00-11:15 am	Why men may not want to participate [Barriers & Benefits]
11:15-11:45 am	How Will You Do It? [Script for Recruitment]
11:45-12:30 pm	Lunch
12:30-1:00 pm	Role play of the script & telephone calls
1:00-1:45 pm	Practice, Forms & Reporting Information
1:45-2:00 pm	Questions & Answers/Summary

Thank you for your willingness to participate and help us with our study!

# Recruiter Training Program

## Agenda

[For training 1-2 recruiters]

9:00-9:15 am	Introduction/Icebreaker
9:15-9:30 am	Why This Study? [Program description/goals/video]
9:30-10:00 am	What Will You Do? [Mechanics of recruitment, Barriers & Benefits]
10:00-10:30 am	How Will You Do It? [Script for Recruiter]
10:30-10:40 am	Break
10:40-11:00 am	Role Play of the script & telephone calls
11:00-11:15 am	Practice, Forms & Reporting Information
11:15-11:30 am	Questions & Answers/Summary
11:30-12:00 pm	Lunch

Thank you for your willingness to participate and help us with our study!

## II.

### Why This Study?

### Program Description



## DESCRIPTION OF BREAST CANCER STUDY

More and more women are being diagnosed with breast cancer. One out of every eight women will develop breast cancer in her lifetime. African-American women often develop breast cancer at an early age (before age 50) and sometimes the disease is more serious than in Caucasian women. This research project is to help us understand the causes of breast cancer. What people eat and drink and other lifestyle habits could affect their health. But not everyone with similar habits will get sick. This may be because of differences in how their bodies respond to things that they eat, drink, and smoke; and medications they take. In this study, we will ask the same questions of women with breast cancer and women without cancer, who are the same age and live in the same counties. They will be asked some questions about eating, drinking, and smoking habits, their jobs, medical histories, and other behaviors which may protect against or otherwise affect disease. Answers to these questions will be compared between women with breast cancer and those without cancer.

One of the substances that people break down differently is caffeine. It is not thought that caffeine has any relation to breast cancer, but that genes that break down caffeine, also break down other substances that could affect health. Therefore, women will take one No-Doz tablet™ by mouth, drink a glass of water, (8-10 oz. ) and supply a urine sample. The No-Doz™ tablet contains caffeine, which is broken down in the body and released in the urine. Blood will also be drawn, (about 2 tablespoons). This blood will be processed to measure differences in how your body deals with things you eat, drink and smoke. Just like the answers to the questions, ways in which people break things down will also be compared between women with breast cancer and those without. From this study we hope that we will be able to see what some of the causes of breast cancer may be.

# BREAST CANCER STUDY

## GOALS

To find out more about

1. Why women get cancer
2. Why some women have cancers that make them die sooner than other women
3. Why some women get the disease at young ages (less than age 50)
4. What things in the environment, in our diets, and in our genes affect these outcomes
5. Effective ways to encourage women to participate in the study

### III.

#### What Will You Do?

Barriers to Participation in Research Studies  
Benefits to Participation

Your Message to Participants:  
"DIB"  
Decisions, Involvement, Benefits

Counseling Guidelines

## BARRIERS TO PARTICIPATION IN STUDIES AND RESEARCH

- Usually has been well-educated, middle-class
- Poverty; lack of education and health insurance – extra tests
- Time and hassle from patient's perspective
- Negative personal and family attitudes
- Inadequate evidence of benefits
- Undesirable side effects of intervention
- Protocol too invasive (e.g. blood draws)
- Too much time required to participate
- Fearful about clinical research, being a "guinea pig"
- Family concerns about trials
- Does not value clinical research
- Belief that investigator is more interested in the research than in patient's well-being
- Information about the trial is too technical and too complex to be easily understood
- Problems with transportation and travel time

## BENEFITS TO PARTICIPATION IN RESEARCH

- Help our daughters/granddaughters
- Knowledge – offers more information

*Source: Recruiting Into Clinical Trials: Toward a Participant-Friendly System. G. Marie Swanson and Amy J. Ward. Journal of National Cancer Institute., Vol. 87, No. 23, December 6, 1995.*

## YOUR MESSAGE TO PATIENTS

"DIB"

### DECISION, INVOLVEMENT, BENEFITS

#### Decision

When you talk with patients, one of the areas you will discuss is why they may choose to participate in the research and what is their decision-making process.

#### Guidelines:

- Focus on the experience – What will she consider in deciding?
- Share the important fact that influenced you – Who or what things helped you decide that it is important to know WHY women get cancer?  
Why YOU or SHE got cancer.
- Share the difficulties and issues. What are the issues that may affect her decision?

#### Reasons you would want to participate:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

#### Other reasons given during discussion:

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## Involvement

It is important for you to share with patients and controls what is **involved** in the study experience – the issues which affect her decision to participate in a study.

### **Guidelines:**

- Give the patient a “picture” of the experience – don’t frighten them, but let them know the kinds of things involved in the study experience.
- Help them feel informed about what to expect

List some of the things that are involved in the research process:

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## Benefits

Be sure to tell the patients all of the good things about the research, and what you perceive to be benefits of participating in a study like this.

### **Guidelines:**

Mention two or three of the most important things – what do you consider to be the top three benefits?

List the benefits of participating in this study:

1. 

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2. 

---
3. 

---
4. 

---
5. 

---

## Recruiting for Studies

### How to Give Advice and be Listened to: Counseling Guidelines

As a breast cancer survivor, you may know a lot about your cancer experience and treatment, but recruiting other patients and women to participate in research about the cause of cancer may require new skills for you. You may get into discussions with women that require some counseling skills. Here are a few tips on how to counsel effectively. Some of these suggestions you may already know. Others may be new to you.

### Counseling/Recruiting Guidelines

- Be supportive and non-judgmental-nothing she says is bad or stupid.
- Ask open-ended questions that can't be answered with yes or no. Questions that begin with why, what, or how for example, will give fuller answers.
- Make sure the questions you ask are ones you can and would answer yourself. Don't ask questions that are too technical or too personal.
- If there is a disagreement, don't defend or argue. Ask more questions to broaden the perspectives. For example, *why do you think that...? Are you worried/afraid that...?*
- Because you are a survivor, she might want you to tell her what to do. Guide her, but make sure whatever decision is made is her own.
- Reflect back to her what she has said, especially if you are unsure about what she means or if she seems unsure of herself. For example, *So you feel/think that....*

## Recruiter Role

### How to Give Information and be Listened to: Research Study Discussion

The guidelines on the previous page help create a sense of trust and a positive tone in a discussion session. It is also important to direct the discussion in such a way that you know what kind of information is needed. Here are some guidelines for directing your discussion:

- Find out what concerns she already has
- Find out what she knows about research or epidemiological studies. Does she worry about being a “guinea pig”? Does she think it is risky? What does she know about others’ experience?
- Find out how she feels about participating in research in general. Does she have any fears about the blood drawing, contamination of her blood, or the caffeine tablet?
- Use the DIB guidelines – Decision, Involvement, and Benefits
- Encourage her to think about the issues and talk with you and the study staff about them.
- Leave her with information and a phone number to call. Tell her you’ll check back with her in a week or so (if appropriate) and encourage her to call about questions.

Talk about the different kinds of questions suggested here. A good recruiting session will:

- get the facts
- discuss feelings and give emotional support
- give facts/informational assistance
- help solve problems
- guide a decision



### Recruiting Techniques Exercise

Working in groups of three or four, fill in the spaces provided with one or two additional questions that will help you reach the counseling goal listed to the left.

<u>Goal</u>	<u>Questions or Statement</u>
1. Get the facts	What do you understand about this study? _____ _____ _____ _____
2. Discuss feeling and give emotional support	How do you feel about participation in this kind of research? _____ _____ _____ _____
3. Give facts/informational assistance	I am a survivor. We are all interested in knowing more about what causes cancer. This study can help us understand why some of us have cancer and other women don't. _____ _____ _____ _____
4. Help solve problems	Are you unable to take caffeine or do you have enough time to participate? _____ _____ _____ _____
5. Guide a decision	Do you have questions I can answer? _____ _____ _____ _____

#### IV.

#### How Will You Do It?

Scripts/Role play  
Contact Sheet

Sequence of Actions  
Interview Topic Outline  
Questions for those who refuse to participate

Date mailed to recruiter

Date to notify UAMS staff &  
return contact sheet

Date recruiter mailed  
contact sheet to UAMS

## UAMS BREAST CANCER RESEARCH CASE CONTACT SHEET

SUBJECT'S NAME: \_\_\_\_\_

SUBJECT'S I. D. NUMBER: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

SUBJECT'S ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

SUBJECT'S RACE: \_\_\_\_\_ AGE: \_\_\_\_\_

RECRUITER'S NAME: \_\_\_\_\_

INTERVIEWER'S NAME: \_\_\_\_\_

### ATTEMPTS

Date	Time	Comments	Participation		Meeting Place		
			Yes	No	Home	Clinic	Hospital

Recruiter, please check the following words that apply to the subject you called. Also write down any additional comments that the subject made or your feelings about your conversation with the subject.

- |  |                                   |  |
|--|-----------------------------------|--|
| <input type="checkbox"/> Enthusiastic    | <input type="checkbox"/> Nervous  | <input type="checkbox"/> Not sure if they want to participate        |
| <input type="checkbox"/> Excited         | <input type="checkbox"/> Hesitant | <input type="checkbox"/> Would like more information about the study |
| <input type="checkbox"/> Willing to help | <input type="checkbox"/> Angry    | <input type="checkbox"/> Questions for study staff                   |
| <input type="checkbox"/> Pleasant        |                                   |  |

Additional Comments:

\_\_\_\_\_  
\_\_\_\_\_  
Please attempt to call subjects at least once between 9-11 a.m.; 1-5 p.m.; and 7-8 p.m. before determining that you can reach them. Please attempt to contact this subject at least 5 times before

\_\_\_\_\_  
return date

## VOLUNTEER RECRUITMENT FORM

[FORM FOR CASES, WOMEN WITH BREAST CANCER]

Hello, may I speak with \_\_\_\_\_  
(WOMEN'S NAME)

(ONCE WOMAN IS ON THE PHONE):

Hello, my name is \_\_\_\_\_. I'm a breast cancer survivor from \_\_\_\_\_. You should have received a letter from \_\_\_\_\_ a while ago and a pink postcard from me, telling you about an important study at the University of Arkansas for Medical Sciences and Jefferson Regional Medical Center on breast cancer. Your doctor there gave the study director your name. If you have time, I would like to tell you about the study. If **no**. If **yes**.

ASK FOR A BETTER TIME TO CALL BACK. TIME: \_\_\_\_\_

Doctors and researchers are concerned, because breast cancer is becoming more common in (African-American) women, and not much is known about what causes it or how to prevent it. Doctors at the Cancer Center are running a study to try to learn some of the causes of breast cancer (especially in African-American women). This study will compare women who have had breast cancer to women who have not, to learn why some get cancer and others do not.

I want to tell you right at the start that there will be no cost to you. In fact, you will receive \$25 as our way of thanking you for participating in our study. I also want you to know that your privacy will always be protected. Only myself, the interviewer, and the study director will be aware of your name. From the time of the interview, only an identification number that has been assigned to you will be used, not your name. Also, this is not a treatment study and your involvement will not interfere with any treatment you may be undergoing.

A female researcher from the Cancer Center will meet you at a place where you feel comfortable, to interview you (ex: your home, clinic, or at a doctors appointment). At the interview, you will be asked questions about your diet, health history, and other lifestyle habits. There will be no embarrassing questions.

Before the interviewer comes, you will be asked to take a small caffeine tablet -- which is in coffee--a simple NoDoz tablet.

**IF THE WOMAN HAS PROBLEMS WITH CAFFEINE:** We would still like you to be in the study, but not take the caffeine tablet or give the urine sample. When you meet with the researcher she will interview you and take a small blood sample.

**Otherwise:** You will be asked to provide a urine sample five hours after taking the NoDoz tablet, which can be taken at home, or the hospital or clinic. You'll get complete instructions about this from the interviewer, who will also take a small blood sample when she sees you.

**(CONTINUE DESCRIBING STUDY):**

You will be mailed the consent form and instructions for the caffeine tablet and urine sample that the interviewer will have talked to you about. Then you can meet with the researcher so she can complete the interview and collect the specimen(s). This will probably take about one hour. That's all there is to it.

**So, do you have any questions?**

(IF THEY HAVE QUESTIONS THAT YOU DO NOT KNOW THE ANSWER TO, TELL THAT AN INTERVIEWER WILL CALL THEM CALL BACK TO ANSWER ANY QUESTIONS).

Do you think you would be able to participate in this study?

( ) YES ( ) NO

(IF NO, TRY TO FIND OUT WHY NOT, AND TRY TO CHANGE THEIR MIND.

IF THEY STILL SAY NO, ASK):



May I ask you just a few short questions on the phone?

(SEE QUESTIONS FOR NON-PARTICIPANTS ON THE LAST PAGE)

**(IF THEY AGREE TO PARTICIPATE, SAY):**



I will tell one of our interviewers that you are interested in being in the study, and she call you to set up an interview appointment date.

Is this the best phone number for them to reach you?

(IF YES, WRITE DOWN THE PHONE NUMBER THAT YOU CALLED.

OR, IF THERE IS A BETTER NUMBER, WRITE IT DOWN HERE).

( ) - - - - -

Is there a good time of day to call you? TIME: \_\_\_\_\_.

---

Thank you so much for your time, and for agreeing to be in this study. One of the researchers will be calling you soon.

QUESTIONS FOR THOSE WHO REFUSE TO PARTICIPATE (Circle responses)

1. Do you currently smoke cigarettes? Yes No

*If no:* Did you ever smoke regularly? Yes No

2. Do you have any children, and if so, how many do you have?

None 1 2 3 4 more than 4

3. On a normal day, how many servings of vegetables would you say you eat?

0 1 2 3 4 5 more than 5

4. On a normal day, how many servings of meat would you say you eat? This includes poultry, beef and pork.

0 1 2 3 4 5 more than 5

5. In a usual week, how many **times** do you drink any alcohol, that is, wine, beer or liquor?

0 1 2 3 4 5 more than 5

6. What was the highest grade or year of school that you completed?

\_\_\_\_\_

7. What is your race?

1. African-American (black)
2. Caucasian (white)
3. Hispanic/Latino
4. Asian or Pacific Islander
5. American Indian or Alaskan Native

Date mailed to recruiter

Date recruiter mailed  
contact sheet to UAMS

**UAMS BREAST CANCER RESEARCH  
CONTROL CONTACT SHEET**

SUBJECT'S NAME: \_\_\_\_\_

SUBJECT'S I. D. NUMBER: \_\_\_\_\_ PHONE NUMBER: \_\_\_\_\_

SUBJECT'S ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

SUBJECT'S RACE: \_\_\_\_\_ AGE: \_\_\_\_\_

RECRUITER'S NAME: \_\_\_\_\_

INTERVIEWER'S NAME: \_\_\_\_\_

**ATTEMPTS**

Date	Time	Comments	Participation		Meeting Place		
			Yes	No	Home	Clinic	Hospital

Recruiter, please check the following words that apply to the subject you called. Also write down any additional comments that the subject made or your feelings about your conversation with the subject.

- |  |                                   |  |
|--|-----------------------------------|--|
| <input type="checkbox"/> Enthusiastic    | <input type="checkbox"/> Nervous  | <input type="checkbox"/> Not sure if they want to participate        |
| <input type="checkbox"/> Excited         | <input type="checkbox"/> Hesitant | <input type="checkbox"/> Would like more information about the study |
| <input type="checkbox"/> Willing to help | <input type="checkbox"/> Angry    | <input type="checkbox"/> Questions for study staff                   |
| <input type="checkbox"/> Pleasant        |                                   |  |

Additional Comments:

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## VOLUNTEER RECRUITMENT FORM

[FORM FOR **CONTROLS**, WOMEN WITHOUT BREAST CANCER]

Hello, may I speak with \_\_\_\_\_  
(WOMAN'S NAME)

(ONCE WOMAN IS ON THE PHONE):

Hello, my name is \_\_\_\_\_. I'm a breast cancer survivor from \_\_\_\_\_. You should have received a letter from the Driver's License Bureau or Social Security Division a while ago and a pink postcard from me, telling you about an important study at the University of Arkansas for Medical Sciences and Jefferson Regional Medical Center on breast cancer. If you have time, I would like to tell you about the study. If **no**. If **yes**. \_\_\_\_\_

ASK FOR A BETTER TIME TO CALL BACK. TIME: \_\_\_\_\_.

Doctors and researchers are concerned, because breast cancer is becoming more common in (African-American) women, and not much is known about what causes it or how to prevent it. Scientists at the Cancer Center are running a study to try to learn some of the causes of breast cancer (especially in African-American women). This study will compare women who have had breast cancer to women who have not, to learn why some get cancer and others do not.

I want to tell you right at the start that there is no cost to you. In fact, you will receive \$25 as our way of thanking you for participating in our study. And I want you to know that your privacy is always protected. Only myself, the interviewer, and the study director will be aware of your name. From the time of the interview, only an identification number that has been assigned to you will be used, not your name.

A female researcher from the Cancer Center will meet you at a place where you feel comfortable, to interview you (ex: your home). At the interview, you will be asked questions about your diet, health history, and other lifestyle habits. There will be no embarrassing questions.

Before the interviewer comes, you will be asked to take a small caffeine tablet --which is in coffee--a simple NoDoz tablet.

**IF THE WOMAN HAS PROBLEMS WITH CAFFEINE:** We would still like you to be in the study, but not take the caffeine tablet or give the urine sample. When you meet with the researcher, she will interview you and take a small blood sample.

**Otherwise:** You will be asked to provide a urine sample five hours after taking the No Doz tablet, which you can take at home. You'll get complete instructions about this from the interviewer, who will also take a small blood sample when she sees you.



**(CONTINUE DESCRIBING STUDY):**

You will be mailed the consent form and the instructions for the caffeine tablet and urine sample that the interview will have talked to you about. Then you can meet with the researcher so she can complete the interview and collect the specimen(s). This will probably take about one hour. That's all there is to it.

**So, do you have any questions?**

(IF THEY HAVE QUESTIONS THAT YOU DO NOT KNOW THE ANSWER TO, TELL THEM THAT AN INTERVIEWER WILL CALL THEM BACK TO ANSWER ANY QUESTIONS).

Do you think you would be able to participate in this study?

( ) YES

( ) NO

(IF NO, TRY TO FIND OUT WHY NOT, AND TRY TO CHANGE THEIR MIND.

IF THEY STILL SAY NO, ASK):



May I ask you just a few short questions on the phone?

(SEE QUESTIONS FOR NON-PARTICIPANTS ON LAST PAGE)

**(IF THEY AGREE TO PARTICIPATE, SAY):**



I will tell one of our interviewers that you are interested in being in the study, and she will call you to set up an interview appointment date.

Is this the best phone number for them to reach you?

(IF YES, WRITE DOWN THE PHONE NUMBER THAT YOU CALLED.

OR, IF THERE IS A BETTER NUMBER, WRITE IT DOWN HERE).

( ) - - - - -

Is there a good time of day to call you? TIME: .

Thank you so much for your time, and for agreeing to be in this study. One of the researchers will be calling you soon.

QUESTIONS FOR THOSE WHO REFUSE TO PARTICIPATE (Circle responses)

1. Do you currently smoke cigarettes?                      Yes                      No

*If no:* Did you ever smoke regularly?                      Yes                      No

2. Do you have any children, and if so, how many do you have?

None                      1                      2                      3                      4                      more than 4

3. On a normal day, how many servings of vegetables would you say you eat?

0                      1                      2                      3                      4                      5                      more than 5

4. On a normal day, how many servings of meat would you say you eat? This includes poultry, beef and pork.

0                      1                      2                      3                      4                      5                      more than 5

5. In a usual week, how many **times** do you drink any alcohol, that is, wine, beer or liquor?

0                      1                      2                      3                      4                      5                      more than 5

6. What was the highest grade or year of school that you completed?

\_\_\_\_\_

7. What is your race?

1. African-American (black)
2. Caucasian (white)
3. Hispanic/Latino
4. Asian or Pacific Islander
5. American Indian or Alaskan Native

## Sequence of Subject Recruitment To Breast Cancer Study

1. Cases are identified through UAMS, VAMC or JRMC Tumor Registries. Controls are identified by Arkansas Driver's Services or Social Security lists.
2. A letter will be sent from the patient's doctor by UAMS staff or from Driver's Services or Social Security, telling him about the study.
3. Cases are assigned to recruiters. Packets are sent to recruiters and include:
  - Contact sheet
  - Script for phone call
  - Reimbursement forms
  - Self-addressed stamped envelopes from UAMS
4. Post-cards will be sent by UAMS staff to the subject with the recruiter's picture and name.
5. Recruiter will contact subjects within 21 days if possible.\*
6. Recruiters return the information (completed contact sheet) back to UAMS.

\* At any time, recruiters may call UAMS staff or assistance with subject phone numbers that may be incorrect.

## INTERVIEW TOPIC OUTLINE

- DEMOGRAPHICS: Very brief personal, demographic information.
- SMOKING HISTORY: Few questions on cigarette smoking for 6 months or longer.
- OCCUPATIONAL HISTORY/EXPOSURE: Brief information on five (5) longest held jobs and related environmental exposure.
- DIET: Meat/Poultry/Fish eaten over year prior to diagnosis/past year including frequencies and cooking methods.
- MEDICAL HISTORY: A few questions on specific diseases; and medications currently taken.
- FAMILY HISTORY: Cancer history of all immediate blood relatives: parents, siblings, children.
- REPRODUCTIVE HISTORY: Childbirth; breastfeeding practices for each child.
- PHYSICAL ACTIVITY: Average amount of exercise over year prior to diagnosis/past year.
- LIFESTYLE: A few very brief, confidential questions on household income and social security number.

TOTAL INTERVIEW TIME: 50-90 MINUTES

V.

Resources

Expense Report Form

Sample Recruiter Card

Post-training Evaluation

Recruiter Memo

# APPLICATION FORM

NAME:

---

ADDRESS:

---

---

HOME #:

---

WORK #:

---

S.S. #:

---

Your social security number is need by the University  
System, so that you will get reimbursed for your efforts.

Signature:

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# UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

## RESEARCH EXPENSE/EVENT REPORT FORM #2 EPI

### STUDY RECRUITER

\_\_\_\_\_  
Your Complete Name (Please Print)

\_\_\_\_\_  
Your Signature

\_\_\_\_\_  
Your Complete Mailing Address

\_\_\_\_\_  
Your Social Security Number

Date	ID#	Will Participate	Will Not Participate	Interview Place			Interviewed Staff Only
				Home	Clinic	Hospital	

#### BELOW IS TO BE COMPLETED BY STAFF

\_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
# of contacts who will not participate    \$5 per Person Contacted    Total

\_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
# of contacts who will participate    \$10 per Person Participating    Total

Total Reimbursement = \_\_\_\_\_

## Name \_\_\_\_\_

### Complete Mailing Address

Car Tag/License Plate # For Driver Only

Training Fee = \$35.00

=  
Total

$$\frac{\text{Round Trip Mileage}}{\text{Rate of pay per mile}} \times \frac{\text{Rate of pay per mile}}{\text{(S.28 per mile)}} = \frac{\text{Total}}{\text{Total}}$$

**Total Reimbursement (training fee + round trip travel cost) = \_\_\_\_\_**



*Hi,*

*My name is Lillie Watson.  
I am a breast cancer survivor and  
do patient education and outreach  
at the University of Arkansas  
for Medical Sciences.*

*Your doctor sent you a letter  
about a breast cancer study. I  
am going to call you soon to talk  
to you about it.*

---



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Arkansas Cancer Research Center, Slot 725  
University of Arkansas for Medical Sciences  
4301 W Markham St  
Little Rock AR 72205-9985

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Address Correction Requested

*Hi,*

*My name is Christine Oliver.  
I am a breast cancer survivor and  
do patient education and outreach  
at the University of Arkansas  
for Medical Sciences.*

*Your name was randomly picked  
from the Driver's License Bureau  
and I am going to call you soon  
to tell you about a study we are  
conducting at UAMS.*

---



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Arkansas Cancer Research Center, Slot 725  
University of Arkansas for Medical Sciences  
4301 W Markham St  
Little Rock AR 72205-9985

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Address Correction Requested

## EPIDEMIOLOGICAL PROJECT STAFF LISTING

NAME	TITLE	NUMBER
Christine B. Ambrosone, Ph.D.	Research Epidemiologist	(501) 686-8574 X 153
Carol Sweeney, Ph.D.	Research Epidemiologist	(501) 686-8574 X 159
Rebecca Morris-Chatta, MPH	Projects Director	(501) 686-8574 X 156
Deborah O. Erwin, Ph.D.	Associate Director for Education	(501) 686-8801
Stephanie Long, BS	Project Director	(501) 686-8574 X 150
Manal Fares, MPH	Research Assistant	(501) 686-8574 X 158
Rachel Butler-Green, BS	Research Interviewer	(501) 686-8574 X 151
Kristy Bondurant, BA	Research Interviewer	(501) 686-8574 X 152
Cecilia Twillie-Woods, BS	Research Interviewer	(501) 686-8574 X 154
Sean Walls, BA	Research Interviewer	(501) 686-8574 X 155
Shelley Sontag, BA	Research Interviewer	(501) 686-8574 X 157

## Breast Cancer Study Recruiter Training

### Program Evaluation

Please take a minute to answer these questions about today's sessions.  
Your information will be used to plan future sessions.

1. Tell us how strongly you agree or disagree with the following statements by circling the number for the appropriate answer.	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
(a) I understand the barriers and benefits which influence a person's decision to participate in research.	1	2	3	4	5
(b) I feel more comfortable about talking with other patients and people about participating in research.	1	2	3	4	5
(c) I feel more confident in advising women who are considering being part of this research.	1	2	3	4	5
(d) I know how to use available resources and materials, like the study description and interview topic outline.	1	2	3	4	5
(e) I understand how to contact patients and controls.	1	2	3	4	5
(f) I understand how to use the contact forms.	1	2	3	4	5
(g) I understand the process of the research project and how patients are selected and enrolled better than I did before.	1	2	3	4	5
(h) I am ready to begin contacting new patients and controls.	1	2	3	4	5
(i) In general, the training materials in the manual were easy to use and understand, and appropriate for the topics.	1	2	3	4	5
(j) In general, the exercises and role playing were helpful to me.	1	2	3	4	5
(k) I had enough time to ask questions and interact with others to understand the material presented.	1	2	3	4	5

2. To assist us in planning future training sessions, we need your comments, criticisms, and suggestions on this program. With 5 being the *highest rating* and 1 being the *lowest rating*, tell us how *informative* and *useful* the information presented today has been for you. Please circle 1, 2, 3, 4, or 5 for each category below.

	How Informative	How useful is the information
Epidemiological Research	1 2 3 4 5	1 2 3 4 5
Presentation of Program description and goals	1 2 3 4 5	1 2 3 4 5
Mechanics of Recruitment	1 2 3 4 5	1 2 3 4 5
Barriers and benefits to participation	1 2 3 4 5	1 2 3 4 5
Script for recruiting	1 2 3 4 5	1 2 3 4 5
Role-playing Exercises	1 2 3 4 5	1 2 3 4 5
Evaluation Techniques/Contact Forms	1 2 3 4 5	1 2 3 4 5
Final Discussion, Questions, Evaluation	1 2 3 4 5	1 2 3 4 5

3. Rate your satisfaction with the training session by circling the appropriate score on the scale below.

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
(A) Location	1	2	3	4	5
(B) Facilities	1	2	3	4	5
(C) Training Format	1	2	3	4	5
(D) Speakers	1	2	3	4	5
(E) Length of time	1	2	3	4	5
(F) Printed Materials	1	2	3	4	5
(G) Luncheon	1	2	3	4	5

4. Finally, please answer the following questions:

A. The best (most helpful) part of the training session for me was:
_____
_____
B. The least helpful part of the session for me was:
_____
_____
C. Please give suggestions which help us improve the training program for the next group:
_____

## MEMO

To: Breast Cancer Study Interviewers and Recruiters  
From: S. Long  
Date: October 11, 1998  
Re: Revision because of phone number changes

The buddy system is a strategy to improve communication between interviewers and recruiters throughout the recruitment phase. Initially, interviewers will contact recruiters the day they mail out recruitment packets. Interviewers will tell the recruiters how many potential subjects they are mailing to the recruiter as well as how many are **priority**. Neon labels will be attached to those cases who must be contacted immediately (within 48 hrs). If a recruiter cannot reach a priority case within this amount of time, they need to contact their interviewer buddy, to let them know. This way, the interviewer can assist the recruiter. It is imperative that we do not lose any potential subjects, due to the late diagnosis date. Whether or not there are new subjects packets to send, interviewers will contact their recruiter buddies once per week, to see how they are, to ask about recruitment progress, and to see if they have any questions or problems.

Recruiters now have **21 days** from the "mail date" to contact their potential subjects. After 21 days, recruiters should return the information in the postage paid envelope provided to:

Stephanie Long  
Surgical Oncology Research  
UAMS Slot #725  
4301 W. Markham St.  
Little Rock, AR 72205  
(501) 686-8574 Ext. 150

Rebecca Morris-Chatta  
Surgical Oncology Research  
UAMS Slot #725  
4301 W. Markham St.  
Little Rock, AR 72205  
(501) 686-8574 Ext. 156

Recruiters and their Interviewer buddies.

<u>RECRUITER</u>	<u>INTERVIEWER</u>	<u>NUMBERS</u>
Joanne Helgeson	Terri Teague	(501) 686-8574 x 152 Pager 688-2256
Linda Creggett	Cecilia Woods	(501) 686-8574 x 154 Pager 395-8233
Gwendolyn Hill	Rachel Butler-Green	(501) 686-8574 x 151 Pager 395-8247
Laurita Irvin	Shelley Sontag	(501) 686-8574 x 157

\*If you have any questions please contact Stephanie Long or Rebecca Morris-Chatta at the following toll free number 1-877-888-0351.